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ABSTRACT

A study investigated the circumstances and conditions that influence the decision to take a training-related position. The primary objective of the study was to produce information on the environmental conditions and personal characteristics associated with training-related placement. Data from the National Longitudinal Survey of Labor Market Experience-Youth Cohort and from the High School and Beyond survey were analyzed using cross-tabular and multivariate regression techniques. Descriptive findings suggested that the training-related placement rate for the first and current job after high school graduation was about 42 percent; on the average, high school vocational graduates held training-related jobs 48 percent of the total time they were employed. Multivariate analyses suggested that: high grades in the vocational specialty were positively correlated with training-related placement; and gender remained one of the strongest predictors of earnings despite training-related placement. Other findings were that: substantial concentration in a vocational specialty was one of the most influential factors in getting and keeping a training-related job, and the trade and industrial specialty was also associated consistently with holding a training-related job. The lack of consistent results for gender and race/ethnicity suggested that the problem of getting and holding a training-related job was general for male vocational graduates and not, as with women, applicable to specific sub-groups. (Additional data are appended.) (YLB)

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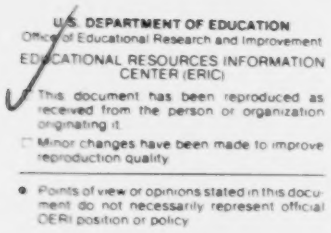
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Foreword

Job placement was recognized as a major outcome of secondary vocational education in the Smith-Hughes Act of 1917. Its importance in the high school program was again confirmed in the Perkins Act of 1984; however, somewhat less than half of vocational graduates actually work in training-related jobs. This research focused on examination of individual-level variables that were hypothesized to influence taking or not taking a training-related position.

The NLS-Youth survey, 1979-1985, was the primary source of data for this analysis. Seven years of survey results currently provide the best opportunity to observe the labor market and educational behavior of a nationally representative sample of young adults. For the purpose of comparison, the High School and Beyond survey (1980-84) was also used in the multivariate analysis. These data reflect a span of four years and so offer a more limited view of labor force activity and training-related placement. These two national longitudinal surveys were supplemented with a telephone survey of a stratified random sample of area vocational school teachers throughout the country.

The intended audience for this report includes policymakers, educators, and counselors. The executive summary and chapter 5 provide a concise description of findings with discussion and recommendations for policy.

This study was conducted in the Evaluation and Policy Division of the National Center for Research in Vocational Education, under the direction of N. L. McCaslin, Associate Director. The project was funded by the U.S. Department of Education, Office of Vocational and Adult Education. Paul B. Campbell, Senior Research Specialist, served as project director. We wish to thank Lawrence Hotchkiss, Senior Research Specialist for his valuable contributions to the text. In addition, we thank Program Associates, Ellen Seusy and Liz Martinez; Program Assistant, Suzanne Laughlin, and Graduate Research Associate, Jack Elliot, for their work in preparing this report. In addition, four anonymous reviewers provided helpful observations and suggestions. Our thanks are also extended to our computer programmers, Rodney Ferryman, John Mudd, Patricia Riege, and Lisa Thiel, for their tireless work and long hours at the computer. For her patience and effort, we thank typist Jeannette L. Painter. Editing was ably provided by Betty Martin.

Ray Ryan
Executive Director
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Research in Vocational Education

EXECUTIVE SUMMARY

Recent state and national policies have made training-related placement an important evaluative criterion of vocational education, yet the rates of such placement are moderate, somewhat less than 50 percent. The purpose of this study is to provide more understanding of the circumstances and conditions that influence the decision to take a training-related position. The report is intended for federal and state legislators, local school board members and administrators, and state education department officials.

The primary objective of the study was to produce information on the environmental conditions and personal characteristics associated with training-related placement. The study also provided the rates of training-related placement by specialty for vocational graduates in their first and current (or most recent) jobs, and examined the impact of training-related placement on the earnings of these graduates.

Data from two national longitudinal databases were analyzed using cross-tabular and multivariate regression techniques. Although some influences specified in the operational model were confirmed by the analyses, only a small percentage of variation was explained by the model, suggesting that unmeasured influences strongly affect the transition from school to work.

The descriptive findings of the study suggest the following:

- Training-related placement rates for the first and current jobs after high school graduation (1976 through 1983 graduates) is about 42 percent.
- On the average, high school vocational graduates held training-related jobs 48 percent of the total time they were employed from 1976 through 1985.
- Training-related placement rates of graduates from the business and trade and industrial specialties tend to increase slightly from first to current job.

Multivariate analyses, permitting comparisons among similar groups through the use of control variables, suggest the following:

- Higher levels of concentration of high school coursework in a vocational specialty are associated with higher rates of training-related placement.
- The trade and industrial specialty is the only vocational program significantly associated with training-related placement in both the first job and the current job.

- o High grades in the vocational specialty are positively correlated with training-related placement.

- o Gender remains one of the strongest predictors of earnings despite, or perhaps because of, training-related placement.

The rates of training-related placement ~~presented here~~ and the positive association of such placement with earnings confirm it as an appropriate objective of secondary vocational education. Of course, related job placement is not and can not be the sole objective. A complementary goal should be a provision of a quality program to teach, enhance, and reinforce fundamental academic concepts and learning strategies.

The study concludes with the following policy recommendations:

- o Federal policy should recognize and encourage the multiple objectives of secondary vocational education. Incentives and sanctions should be in place to encourage continued placement and to assist those who experience a delay in such placement. The role of high school vocational education as an alternative or supplemental avenue of learning should be encouraged, perhaps through federal funding.

- o Although vocational education alone cannot correct the earnings equity problem for women, the heavy predominance of women in the lower-paying business curriculum should be discouraged, perhaps by offering incentives for programs that encourage women to enroll in trade and industrial programs. New specialties that lead to higher paying careers, and not gender tied, should also be developed through grants or other incentives. If an alternative learning option (that is, work attitudes, basic skills, problem solving) is the objective, then the policy emphasis should be upon enriching the general learning opportunities in vocational classes.

- o Counseling has not shown strong associations with achieving training-related placement, because the major emphasis has traditionally been upon college attendance rather than job finding. Therefore, an emphasis upon job placement may be in order.

- o Programs need to be closely tied to the local labor market to achieve a higher rate of training-related placement. Students should be aware of the need for a commitment to the specialty as a career goal. Teachers need to have close contact with employers in the local labor market and schools should be encouraged to investigate the consequences of shifting their vocational training to the area vocational centers. To avoid the potential dead end

of a premature career decision, however, schools should follow a different approach. Incorporation of general learning in the vocational curriculum should be rewarded. Students should be encouraged to make career decisions, but also to keep their options open. Graduation requirements should be structured to allow dual vocational and academic concentration.

An intensive longitudinal study of students from a representative sample of secondary schools is needed to further test assumptions about the school-to-work transition. This type of study should include valid measures of personal characteristics such as self-esteem, locus of control, attitude toward work, and decision-making style. Furthermore, better data are needed to test the influence of such variables as employer bias, expected earnings, the match between vocational programs and local labor markets, and vocational program size on training-related placement. Elaborate theories about early career decision making have been constructed; few have been tested empirically.

CHAPTER 1

THE STUDY BACKGROUND

Problem

Analysis of two major national surveys, the National Longitudinal Survey of Labor Market Experience-Youth Cohort (NLS Youth), and High School and Beyond (HS&B), shows that the training-related placement rate for vocational education graduates ranges from 20 to 42 percent. In contrast, Mertens et al. (1980) conclude that there is an average rate of over 50 percent training-related placement after reviewing the findings of numerous previous studies. The differences among the cited percentages point to the necessity for more detailed information and further research in this area, but more importantly, even a placement rate of 50 percent demonstrates that secondary vocational training has other outcomes in addition to related job placement.

A reasonably rigorous definition of training-related placement needs two major components. One is the instructional content of the educational program. What is the relationship between the curriculum taught and actual jobs available in the labor market? The other is the activity content of the actual job held by the vocational graduate. The definition used to determine the 20 percent to 42 percent figures quoted previously is derived from a crosswalk between codes representing the curricular content of seven vocational programs and job content as represented by census codes. The crosswalk was reported in Vocational Preparation and Occupations vol. 1, 1979. Much of the data reported in Mertens et al. (1980) relied on assessments by individuals in response to questions about using skills they had learned in school. In many cases, this type of question asks only if the respondent took a job where he or she expected to use the training, not whether the training was actually used. The conflicting findings and differences in methodological approaches present a confusing issue in need of resolution.

The rate of training-related placement is a major criterion for vocational program evaluation as mandated by the Education Amendments of 1976. The Carl D. Perkins Vocational Education Act of 1984 also requires evaluation in terms of how well occupational training reflects actual state labor market conditions and the hiring needs of employers. In other words, a program that results in students being placed in training-related positions receives high marks from legislators and policymakers. To assess the impact of this policy orientation, we must understand the effects of obtaining a job related to one's training. Further, are there individual characteristics and/or conditions of the environment

that influence the rate of training-related placement? If so, what are they?

Objectives

There are four major objectives for this study. The intended outcome of this research is to provide information for planning and policy development.

- To determine what individual characteristics are associated with training-related placement following high school vocational education.
- To determine whether program specialty and school size are associated with a higher percentage of training-related placement.
- To determine the influence of region, community type and unemployment rate on training-related placement.
- To disseminate the results of this research in a form useful to policymakers, educators, and students.

Background information and an analytical design are presented in the next two chapters. The analysis takes the form of a multivariate model based on the review of earlier work. The results are presented in chapter 4, followed by conclusions and recommendations in chapter 5.

CHAPTER 2

LITERATURE REVIEW

This study examines the individual characteristics that influence rates of training-related placement for vocational graduates of secondary programs. Many studies have documented labor market advantages for individuals who take training-related jobs. Several studies have examined the institutional characteristics that influence the rate of training-related placement. The literature has few studies concerning individual characteristics as they relate to training-related placement. However, a review of the literature is beneficial to providing background information and reviewing those studies that do address the factors that influence training-related placement.

Training-Related Placement: Definition and Problems

Understanding training-related placement as a concept seems rather simple and straightforward. However, the notion of training-related placement has led to much debate over its definition and its appropriateness as an outcome and evaluative criterion for secondary vocational education. Copa (1980) questions the use of the term "training-related placement." He links the appropriateness of a training-related evaluative criterion for vocational education with the original intent of the program: "When the intent of a vocational program is to provide specialized preparation for a job or group of jobs, then the aim of expecting program leavers to enter these training-related jobs becomes appropriate." He further cites the possibility of more than one meaning for the term "training-related." Could it refer to the match between the individual's abilities and interests and the job? Or does it refer only to the job and the program? If so, how does one limit and define both of these entities? A job could include many different tasks and require a variety of abilities and skills, not all of which could be considered vocational. Vocational training could go beyond the walls of a classroom to include learning and experiences from many different settings. Copa further points to the difficulty of matching job names with actual job content. Often job names are the same, but the content differs.

Mertens and Gardner (1983) caution against the evaluation of vocational education programs solely on training-related placement rates, although they found higher satisfaction on the job for vocational graduates. Grasso and Shea (1979) also point out that program success is narrowly defined if it is based on training-related placement. The influence of eventual educational attainment, nonvocational purposes, and differences in learning styles exemplify reasons why students enroll in vocational education and illustrate its multidimensional flavor.

Another view offered by Goodlad (1984) suggests that vocational education should steer away from training for a specific job and gear its course work toward a basic knowledge of economics and technological literacy. Weisberg (1983) recommends that specific job training should be left to the postsecondary institutions. Another researcher, Starr (1983), found that many vocational instructors are simply not emphasizing training-related placement. However, Wilms (1984) points out that although employers want literate and trainable employees, they will pay higher wages to those possessing applicable vocational training.

Other authors and researchers concerned with the decision-making behavior of young people often argue that high school students do not make strong commitments to careers. Rather, the high school years are often characterized as a time of exploration and uncertainty. The decision to begin a vocational program may have nothing to do with acquiring a training-related job. McDonald (1986), for example, found young women to be less certain than men in regard to future education career goals. Osterman (1985), describes the early postsecondary years as a time of "floundering" characterized numerous job changes and minimal commitment to the labor market.

Criticisms of the methodology used in vocational education studies are discussed by Gustman (1981). He questions the use of wages as a suitable measure of effectiveness. Furthermore, he indicates that students are not randomly assigned to a high school or to programs, thus making comparisons and statistical analysis difficult. Therefore, the traditional use of SES categories, for example, may not adequately reflect the situation for vocational students. He suggests that self-selection into vocational education may indicate a difference in motivation or other differences difficult to detect and measure.

Regardless of the problems and concerns presented, the Carl Perkins Act clearly implies that vocational education programs be evaluated by the rate of placement in occupations related to vocational training by its emphasis on preparing for existing and future labor markets.

Training-Related Placement and the Labor Market

An understanding of training-related placement from a policy perspective is important for additional reasons. First, Campbell and Basinger (1985) Gardner (1984), Mertens (1983), and Meyer (1981), find a clear labor market advantage (that is, increased rates of labor force participation, lower rates of unemployment, and higher earnings) for secondary vocational graduates in training-related jobs over graduates from the general curriculum and vocational students who are not employed in training-related jobs. Daymont and Rumberger (1982) also find a labor market advantage for those with related placement; the advantages are

especially evident for women graduating from the office occupations specialty. Gordon (1985) found that success in the labor market immediately after high school was strongly associated with taking additional vocational courses.

Bishop (1983) found that students in a training-related job were considered to be more productive, required less-on-the-job training, and received higher wages than those without it. However, Bottoms and Copa (1983) claim that only one fifth of high school students have access to intensive occupationally specific programs.

Rumberger and Daymont (1984) conclude that more specific vocational training increases the probability of being placed in a job related to that training. Lewis (1983) reported that men in the trade and industrial specialty are more likely to obtain jobs classified as skilled than similar men without training, and women in business obtain more clerical jobs than their counterparts without training.

Conceptual Framework

The conceptual framework of this study embodies concepts from a number of theoretical positions. The situation of a vocationally trained young person, in or not in a training-related job, is the consequence of a series of decisions. Events and conditions of the individual's past, present, and expected future have influenced the decision-making process. To understand the reasons for the individual's present position, it is necessary to postulate these events and conditions and then examine their expected relationships.

Human capital theory suggests that, on the average, individuals make decisions about how they will invest their time to maximize a return on that investment in some form that they value above other possible returns. It does not specifically address how individuals arrive at the particular values that are primary. Nor does it address how they assess the probability of achieving a desired return, and therefore, how they decide whether an investment to achieve that return is reasonable. Theoretical formulations of the human capital model have been analyzed intensively by Becker (1975), Ghez and Becker (1975), Blinder and Weiss (1976), Ben-Porath (1967), Mincer (1970), and Rosen (1976). The conceptual model for the present study includes variables that represent human capital investment, such as choice of program and degree of concentration.

Status attainment theory, an alternative explanation of career decision and attainment, suggests that the individual's parents and significant others condition the assessment of the reasonableness of an investment and also the opportunity for that investment. In other words, parents and significant others reduce the costs of the investment to the individual by providing

supportive goods and raising expectations. Or, they may increase the costs by failing to provide these supports. Status attainment theory thus provides some additional explanation of how decisions are made in selecting the type and level of education, that, in turn, should lead to related jobs.

The general premises of status attainment theory have been well supported by numerous research efforts (see, for example, Sewell and Hauser 1975; Hotchkiss and Chiteji 1981; Alexander, Eckland, and Griffin 1975; Hodson and Kaufman 1982; Otto and Haller 1979). However, the operation of both human capital and status attainment presumes a competitive process in a free market. As Horan (1978) has pointed out, the characteristics predicting educational and labor market outcomes are individual and do not adequately account for the influence of conditions in the marketplace. He identifies dual labor market theory as an alternative.

Dual labor market theory hypothesizes that, even among people with similar amounts and kinds of education, access to the different sectors of the labor market differs depending upon race/ethnicity and gender. (See Hodson and Kaufman [1982] for a critical review.) The more radical class structure theories suggest that the institutions of the society encourage or discourage aspirations and corresponding individual investments in training.

Observation of the current scene will find some elements apparently operating that will fit any of these theoretical positions. An adequate operational model must therefore take this into account. The variables that these theories suggest and that must be accounted for are depicted in figure 1. The following three studies lay the foundation for the operational model in figure 2.

Higher placement rates in training-related jobs exist in schools and communities where: (1) the school staff supports the training-related placement goal; (2) teachers have contacts in the field; (3) the job placement officer is active and involves teachers; (4) cooperative vocational education programs encourage training-related placement; (5) students are in vocational youth organizations; (6) employer "needs assessment" surveys are used; (7) a higher demand for workers exists; (8) transportation is not a problem; (9) the industry-size mix constitutes a greater number of small businesses rather than large business; and (10) manufacturing is a major industry (McKinney et al. 1983).

Massoudi (1985) studied training-related placement in a postsecondary vocational program. Although his subjects were not high school students, many of the factors he found that both enhance and inhibit related placement rates have been found by others to apply to the secondary level (Mertens and Gardner 1983). Those factors encouraging training-related placement are (1) adequacy of training; (2) commitment of school personnel to placement of graduates; (3) involvement with a cooperative program; (4) the relationship between graduates and employers; (5) relationship

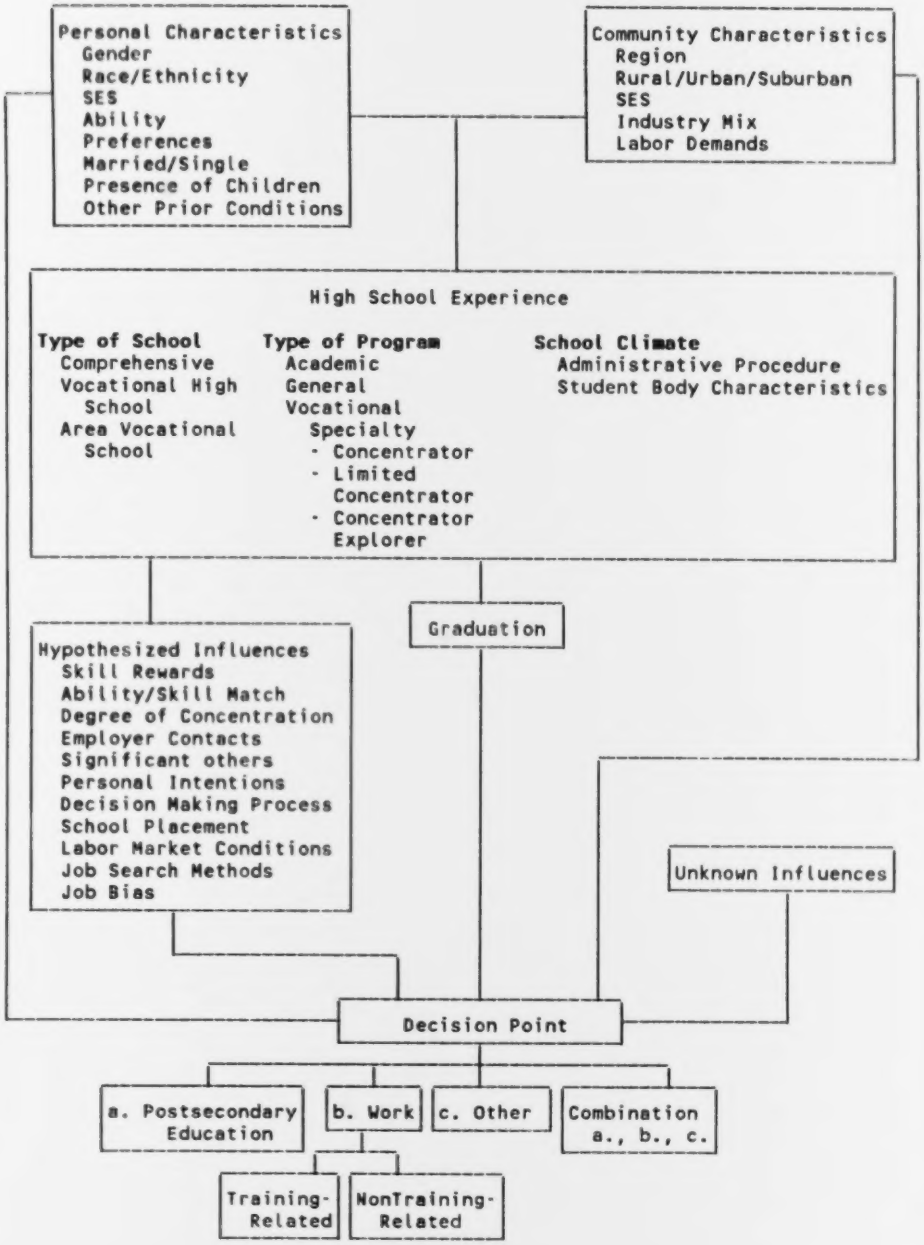

Figure 1. Conceptual model of variables influencing individual decisions

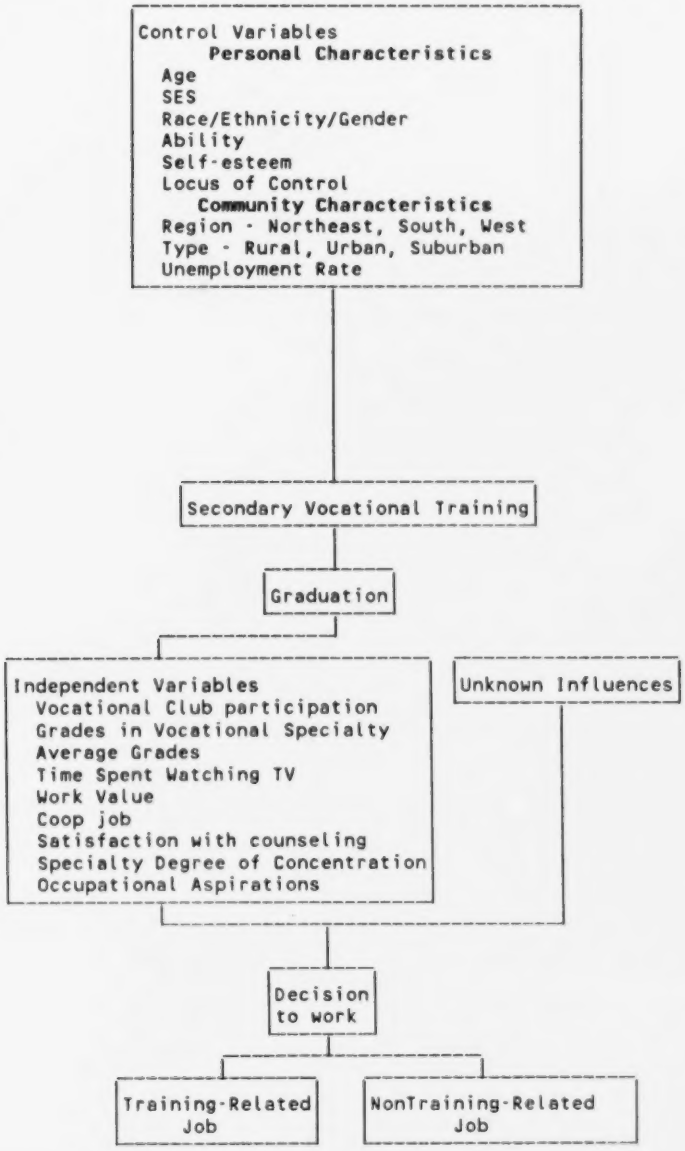

Figure 2. Operational model of variables influencing job selection

between school personnel and employers; (6) help from friends and relative; (7) self motivation; (8) good attitude; (9) employability skills; (10) existence of an advisory or craft committee; (11) good local economic conditions; and (12) cooperation between the instructor and placement officer. Those conditions or circumstances limiting rates of training-related placement are (1) lack of adequate work experience; (2) lack of specific training; (3) limited number of jobs available in area, poor local economy; (4) lack of employability skills; (5) age, poor attitude, lack of motivation; (6) lack of funds to search for job; (7) lack of language competency; and (8) lack of updated and computerized equipment in the training program. Massoudi's findings, a combination of individual, school, and community characteristics are similar to those reported by McKinney et al. previously noted.

Shaffer and Hubbs (1982) present 6 strategies to enhance training-related placement for nontraditional secondary students. They are (1) building a relationship with employers; (2) diagnosis of employer needs; (3) acquiring relevant resources and preparing students; (4) choosing strategies to enhance placement; (5) gaining acceptance of nontraditional students as employees; and (6) follow up and program evaluation. The focus here is directed toward circumstances external to the school. It seems effective placement, then, is a combination of factors involving individual, school, and community characteristics.

Selection of control variables reflect those of both an individual and institutional nature. Gender, race/ethnicity, SES, ability, and other prior conditions represent standard individual differences. Community characteristics such as region, community type, and labor market conditions are controls for the type of environment in which one lives. Variables of both types, individual and community level, influence the high school experience, interacting with the institutional characteristics of the organization. At graduation, decisions are made that are influenced by a myriad of conditions and influences past and present. Hypothesized influences reflect the eclectic quality of the conceptual model, combining elements of status attainment theory (for example, significant others and SES), human capital (degree of concentration and personal intentions), and dual labor market (job search methods and job bias). Furthermore, other factors that affect individual decision making reflect the high degree of individuality involved in this process.[1] Unknown influences are also noted to reflect the variety of internal and external factors that influence decision making. These factors and conditions can change over time and will vary in their degree of impact upon the individual. Independent variables listed in figure 2 represent reasonable measured indicators of the concepts

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1For enlightening theories about how individual decision making operates, see Gottfredson, 1981, and Krumboltz, 1983.

developed in figure 1, given the information available in the longitudinal surveys.

CHAPTER 3

METHODOLOGY

Data

Two national longitudinal databases, High School and Beyond (HS&B) and the National Survey of Labor Market Experience-Youth Cohort (NLS-Youth), provided the basis for analyses. In addition, a telephone survey of a small stratified random sample of area vocational school teachers was conducted to supplement and enrich the information from the two national surveys.

HS&B

The HS&B database, commissioned by the Center for Education Statistics (CES), consists of information collected in 1980, 1982, and 1984 from a representative national sample of about 30,000 high school sophomores and 28,000 seniors. The present study focused primarily on vocational education students from public high schools who were at the sophomore level in 1980. The senior cohort data were used in only one analysis.

The base year questionnaire included information on the students' high school experience, work experiences, personal and family background, attitudes, and plans for the future. Information was also obtained from administrators about school characteristics, from teachers about their evaluations of students participating in the sample, and from a subset of parents about financing higher education.

The first HS&B follow-up survey in 1982 consisted of the original 30,000 1980 sophomores and 12,000 1980 seniors. The follow-up sample of seniors was randomly selected from the original 28,000 seniors questioned in the base year. A subsample of 13,682 1980 sophomores provided data during the second follow-up in 1984.

The High School and Beyond transcript data collection was initiated by the CES under contract with the National Opinion Research Center (NORC) to code transcripts of the 1980 sophomore cohort. It was not feasible within the resources of the survey to attempt to collect the high school transcripts of all of the respondents in the first follow-up sample. Therefore, a further subsample was drawn from that group for transcript collection. The transcripts were collected in the fall of 1982; the target sample consisted of 18,427 of the 30,000 1980 sophomores included in the first follow-up. This sample, as drawn, maximizes the subgroup sizes for such strata as dropouts, students in private schools, selected minority groups, and students whose parents were surveyed in the base year. High school transcripts could not be

obtained for every individual in the sample. The weighting procedures devised took this into account as well as the original sampling specifications.

The student transcripts contained information for each secondary-level course taken. Each course included a six-digit course identification number, the year and term the course was taken, the credits earned, and the final grade. Courses that are a part of special curricula or programs (for example, bilingual education, special education, programs for gifted students) were identified. In addition, each record included information on the student's rank in class, overall grade point average, number of days absent, number of days of suspension, the date and reason the student left school, and identifying codes and scores for standardized tests.

NLS Youth

The New Youth Cohort is a national probability sample of youth who were between the ages of 14 and 21 when originally selected in 1979. The sample was divided into three subsamples: (1) a nationally representative sample; (2) a supplemental sample of blacks, Hispanics, and economically disadvantaged whites; and (3) a sample of young persons serving in the military. Due to the fact that Hispanics, blacks, and economically disadvantaged whites are purposefully overrepresented in the NLS Youth sample, a weighting procedure taking these oversamplings into account was developed to permit more accurate estimates for the whole youth population.

Extensive background information about family, schooling, work history, and training was gathered from all the respondents in the NLS-Youth survey when they were first interviewed in early 1979. In addition, data on current educational and labor market activities were obtained. Follow-up interviews with the NLS-Youth participants have been conducted annually through 1985.

The transcript collection was initiated through a subcontract let by the National Center for Research in Vocational Education to the National Opinion Research Center (NORC) to secure and code the transcripts of the NLS-Youth respondents. Transcripts were collected in 1980 for members of the sample who were 17 years or older at the 1979 NLS interview, and again in 1981 and 1983 for the youngest members of the cohort. Respondents excluded from the collection effort were those in the military sample and those who attended foreign high schools. If a student had transferred and the original transcript was incomplete, extensive efforts were made to locate and contact the new school to obtain the student's records.

If available, the coded information from the individual transcripts included: (1) days absent, grades 9 through 12; (2) academic rank in class; and (3) test scores for mathematics and

verbal aptitude--Preliminary Scholastic Aptitude Test, Scholastic Aptitude Test, and American College Test. Course information included the specific course taken, the grade or year in which the course was taken, the letter grade, and the credit received for the course.

At the time of the coding, each course credit was converted to a common scale, the Carnegie credit unit. This system assigns 1 credit to a standard full year course, or one course taken 1 hour a day for 180 days. The Carnegie credit unit system provides a method that is sensitive to the length of time spent in the classroom (in contrast to a simple count of courses taken), thus standardizing for variations among courses in time and across schools.

A coding system to identify the actual courses taken by the student was developed from the Standard Terminology for Curriculum and Instruction in Local and State School Systems Handbook VI (Putnam and Chismore 1970). The course identification scheme consisted of a two-digit code that specified the individual course within the general category (for example, Math I, American Literature).

Data for the analyses in the present study were taken from the 1979-85 surveys and primarily from those students with usable transcripts. Most subsamples used in this study were selected to contain only vocational education students from public high schools.

Telephone Survey

Teachers from eleven randomly selected area vocational schools were surveyed by telephone. Three schools were selected in both the western and northeastern regions, one school from the north-central region, and four schools from the southern region of the nation. Three randomly selected vocational teachers in each of the 11 schools were asked to identify 3 former students, 1 outstanding, 1 average, and 1 below average in the program. The teachers supplied the following:

- Vocational program of each student
- If currently working in training-related job
- Hourly wage rate
- Job finding process
- Student's performance in training program (teacher report)
    a. success in program
    b. courses taken
- High school work experience

- o Student's general school performance
- o General description of student's background
- o The community's labor climate
- o Presence of a job placement officer

The students were not identified to the researcher who conducted the survey.

Data Analysis

The conceptual framework and the study design established the requirements for the analyses of the HS&B and NLS-Youth data. The tabular analysis provided a simplified display of major relationships. Tabular analysis, however, is inadequate when multiple interrelations are required for interpretation. The heart of the analysis rested on multivariate regression techniques. The principal equations were of the following form:

$$TRP = a + B_nT_n + C_nP_n + D_nL_n + e$$

where

TRP is training-related job placement;

T is a vector of secondary vocational training;

P is a vector of personal characteristics, including gender, ability, family SES, and other personal factors;

L is a vector of characteristics of the locale, including labor market conditions, region, and urban status;

a is the intercept

B, C, and D are sets of parameters;

e is the error term.

These equations were first estimated by ordinary least squares (OLS). Although the assumptions of OLS are not entirely met by this specification, the results are quite robust and the findings are generally not altered under most conditions even when techniques with more plausible assumptions are used. However,

verifications were run using the probit maximum likelihood procedure.[2]

The telephone survey data were analyzed using tabular techniques. Categories were developed as the results emerged from the data. The information was used to supplement the findings from the longitudinal databases.

Variables

For analytic purposes it is convenient to classify the variables in this report into three categories--dependent variables, primary independent variables, and control variables. Dependent variables include whether or not the first job after high school was related to the high school vocational training and whether or not the current or most recent job was related to the high school vocational training. Other dependent variables were the proportion of time in jobs related to high school vocational training and 1984 annual earnings. The independent variables consist of program, personal, and community characteristics. Control variables include personal and parental characteristics, region of residence, and location (rural, urban) of residence. Detailed description of the variables follows.

Dependent Variables

The four dependent variables were defined as follows:

- First job after high school--the vocational graduate's first job after high school (1 = The job relates to secondary vocational training. 0 = The job does not relate to secondary vocational training. Note: The job could have been started in high school and carried over to qualify as the first job after high school.

- Current or most recent job--the job the vocational education graduate reported at the time of the latest follow-up survey (1 = The job relates to secondary vocational training. 0 = The job does not relate to secondary vocational training).

- Proportion of time--the proportion of time the individual worked in training-related jobs divided by the total time the individual worked after graduation.

2In the probit analysis, the mean was selected as the point on the curve at which to evaluate the results.

- Annual log earnings in 1984--the natural log of the respondent's annual earned income during the year prior to the 1985 interview.

Determination of a respondent's occupation and industry area was based on the Census Bureau's three-digit code for occupation. If that person's vocational specialty matched the occupational area or a combination of occupation and industry, the person was designated as being in a training-related job. The decision was based upon the crosswalk prepared by the National Occupational Information Coordinating Committee (NOICE 1982). The occupation codes were updated to coincide with the 1980 Census codes. If more than one occupation was listed, placement in any was counted. When the NOICE crosswalk did not include an occupation, a judgment was made by the researchers.

Independent Variables

Several independent variables presented in chapter 1 were not addressed in this study. For example, school type could not be identified in NLS-Youth and had already been studied with the HS&B data. A previous study by Campbell et al. (1987) found no relationship between the type of school (comprehensive, vocational, or area vocational school) and the labor market outcomes of vocational students. The academic and general curriculum variables were not included because this study dealt exclusively with students classified as a vocational education Concentrator/-Explorer, Limited Concentrator, or Concentrator. This focus was necessary because training-relatedness is undefined outside of vocational programs. Information to describe the school climate was not available in the present longitudinal data. The following independent variables were used in the study:

Program Characteristics

- Vocational specialty--agriculture, business, health care, trade and industrial, home economics (the reference group), and marketing.

- Self-report vocational--the respondent perceived his or her curriculum pattern to vocational. This variable was used in the NLS-Youth percentage-of-time equation only.

- High school counseling--student perception of the quality of counseling offered by his or her school (4 was a high rating and 1 was a low rating). This question was only addressed in NLS-Youth by students in school in 1979. The overall average was assigned to those respondents not in school and to those with missing data.

- Vocational school--full-time vocational high school (HS&B).

- Area vocational school available--student could attend an area vocational school.

- School size--number of students in 12th grade.

- Vocational education curriculum pattern--Concentrator, Limited Concentrator, and Concentrator/-Explorer. (Concentrator/Explorer = reference group) The three categories were based on earned credits from transcript data and the intensity, diversity, continuity, and persistence in vocational course taking patterns.

Concentrators were those students who, on the average, had six or more credits in their vocational education specialty area. They frequently had an additional credit in another service area, and occasionally this credit could be judged as supportive of their specialty. They usually took courses in the specialty service area during at least 3 years of their high school career, and nearly always took courses in both the eleventh and twelfth grades.

Limited Concentrators averaged a little more than 3 credits in a service area and tended to take their specialty courses in only 2 years. They took their specialty courses in both eleventh and twelfth grades a little less often than the Concentrators did. They also took more courses outside their specialty area, but only occasionally were those judged to be supportive.

Concentrator/Explorers averaged almost a full credit (0.9) less than Limited Concentrators in a specialty. They tended to spend fewer than 2 years pursuing a specialty and many did not take specialty courses in the twelfth grade. Many of them sampled at least two service areas, but rarely were those judged to be supportive of their specialty.

Community Characteristics

- Community unemployment rate--acquired from the 1980 census data for HS&B. The county unemployment rate was assigned to NLS-Youth respondents for both 1979 and 1984 when the proportion of time and 1984 log earnings were the dependent variables. The year the respondent acquired a job was used when the first or current job was the dependent variable.

Personal Characteristics

- Work value--a scale of the value of work, based on the importance of the following subjects to the student in high school during his or her senior year: experiencing success in work, having a lot of money, and finding steady work. Available only from the HS&B data.

- Work study--defined as whether the respondent ever secured a co-op, CETA, or work experience job while attending high school.

- Self-esteem--an additive score of various self-esteem questions answered by students in the 10th grade in HS&B and asked of NLS-Youth respondents in 1980. High values correspond with high self-esteem.

- Absenteeism--defined in HS&B as the number of days the respondent was absent from school for reasons other than illness. The NLS-Youth regression used the following categories to define absenteeism (high = more than 20 days absent in both the junior and senior years, medium = more than 20 days absent in either the junior or senior year, low = fewer than 20 days absent in each of the junior and senior years).

- Tenth and Twelfth grade GPA--the cumulative number of course credits multiplied by the grade received for that course:

  A+, A = 4.0; A- = 3.7; B+ = 3.3; B = 3.0; B- = 2.7; C+ = 2.3; C = 2.0; C- = 1.7; D+ = 1.3; D = 1.0; D- = 0.7

  These numbers were added together, then divided by the total number of credits for all courses taken (HS&B only).

- Major specialty GPA--the cumulative number of vocational specialty credits multiplied by the grade received for that course:

  A+, A = 4.0; A- = 3.7; B+ = 3.3; B = 3.0; B- = 2.7; C+ = 2.3; C = 2.0; C- = 1.7; D+ = 1.3; D = 1.0; D- = 0.7

  These numbers were added together, then divided by the total number of vocational specialty credits (NLS-Youth only).

- Currently enrolled in postsecondary--acquired from the student's self-report of enrollment status.

- Postsecondary training (NLS-Youth) or currently enrolled in a vocational school (HS&B)--whether the respondent was or is enrolled in any postsecondary vocational courses.

- Ever attended postsecondary--whether the respondent was or is enrolled in any postsecondary courses.

- Lived with at age 14--acquired from the student's self-report of with whom the student lived at age 14 in NLS-Youth and of with whom the student lived at the time of the interview during the sophomore year in HS&B.

- Where lived at age 14--acquired from the student's self-report of where (rural, or other) the student lived at age 14 (NLS-Youth only).

- Job aspiration at age 35 or 30--the occupation the student aspires to hold at age 35 (NLS-Youth), or age 30 (HS&B), (1 = the job relates to the vocational training taken while at the secondary level, 0 = the job does not relate to the vocational training taken while at the secondary level.

- Age--the student's age at the time he or she acquired his or her first and most recent or current jobs or at the last interview for the earnings variable.

- Marital status--the marital status of the respondent at the time he or she acquired his or her first and most recent or current jobs.

- Presence of children--whether children were present at the time the student acquired his or her first and most recent or current jobs.

- Expected or desired number of children--defined as the number of children expected or desired at the time the student acquired his or her first or most current jobs (HS&B only).

- Locus of control--a derived value indicating the student's perception of his or her influence over personal well-being.

- Significant others--the respondents perceived the view of a person they respected as strongly approving = 4, somewhat approving = 3, somewhat disapproving = 2, strongly disapproving = 1 when they were asked questions concerning future plans (NLS-Youth only).

- Hours spent watching TV--the number of hours the student watched TV the week prior to the NLS-Youth interview in 1981 or as the number of hours per week the student watched TV during his or her senior year (HS&B).

- Parents' occupations--whether the parents' jobs relate to the students' secondary vocational training. If yes, the variable was coded 1; otherwise, 0. The parents' jobs were considered at the respondent's age 14 in NLS-Youth and during the sophomore year in HS&B.

- Member of a vocational education youth organization--whether the student was a member in a high school vocational youth organization or not (HS&B only).

- Level of activity in a vocational education youth organization--in NLS-Youth either being moderately or highly active. In HS&B the student member is given a 1 = leader and 0 = member.

- ASVAB--a composite of 10 scoring areas from an aptitude test given to all respondents in NLS-Youth.

- Verbal and Math--scores from verbal and math tests administered with the HS&B survey.

- College Aspirations--whether the student planned to go to college when in the eighth grade (yes = 1) (HS&B).

- Classes taken away from home school--Acquired from the HS&B Seniors' self-report.

- Remedial English--self-report of taking class (HS&B).

- Remedial Math--self-report of taking class (HS&B).

- Advanced Algebra--self-report of taking class (HS&B).

Control Variables

In specifying models represented by OLS regression equations, it was necessary to include in the models all variables that may have been correlated with both the dependent and explanatory variables in order to ensure that the beta coefficients for the independent variables of primary interest remained nonbiased. In other words, a regression coefficient represented the effect of an independent variable on the dependent variable given or holding constant the remaining independent variables in the model. This implies that omitting some or all of these other relevant indepen-

dent variables changes or biases the beta coefficient because it is holding constant only a subset of the appropriate variables.

The control variables used in this study included the following:

- Race/ethnicity--defined as white, black, Hispanic, Native Americans, and other (majority white = reference group).
- Gender--defined as male or female (male = 0, female = 1).
- Area of residence--rural, suburban, or urban. (suburban = reference group).
- Socioeconomic status (SES)--a created index for respondents at age 14 based on parents' occupation, education, and ownership of selected household items.
- Region--Northeast, North Central, South, West (North Central = reference group).
- 1985 age--age during the 1985 NLS-Youth interview.

The results of analyses conducted using these variables are reported in the next chapter.

CHAPTER 4

FINDINGS

Introductory Remarks

The analyses conducted in this study confirm some previously observed phenomena and suggest some new insights into the operation of a variety of influences on training-related placement for the individual. The purpose of the analyses was to provide information on three potential sources of influence. These were individual, school program, and community characteristics.

The Descriptive Results

The results are presented in a sequence beginning with descriptive tables showing the relationship to training-related placement of school program and certain individual variables suggested by status attainment theory. The sequence then moves through multivariate tables showing both prior and contemporaneous influences on placement, to further analyses that show the outcomes of such placement on annual earnings. Finally, the results of the telephone survey are presented. The majority of the analyses were done with the NLS-Youth data because of its rich content of labor market information, spanning 7 years at the time of this analysis. Some of the analyses were replicated in the HS&B database, using the sophomore cohort primarily, and the senior cohort in one instance.

Race/Ethnicity, Gender, and Training

Job holding is a dynamic process, and more than one point in time is needed to reflect its dynamic nature. Table 4.1 presents the placement picture for the first job after high school and for the current or most recent job by gender; table 4.2 presents the same information by race/ethnicity. A comparison of the total percentages in these two tables confirms the moderate rates of training-related placement (about 42 percent) across all specialty areas and suggests no overall shift away from such jobs over time but rather, a slight increase. However, an interesting comparison can be made between the two most popular specialties, business and trade and industrial. When the percentages of non-related to related jobs are compared, the two specialties both show slight increases in training-related employment.

The trends for gender are quite interesting. In the business specialty men increase from about 19 percent to 33 percent, whereas women increase about 1 percentage point. In contrast, men in the trade and industrial specialty decrease in training-relatedness about 1 percentage point, whereas women move from 14 percent to 46 percent.

TABLE 4.1

Percent Training Related Placement by Gender and Specialty

		First Job			Current Job		
		Total	Male	Female	Total	Male	Female
Agriculture	TRP	39.9	45.7	--	48.6	59.4	--
	NTRP	60.1	54.3	--	51.4	40.6	--
	n	150	127	23	150	127	23
Business	TRP	37.1	18.6	40.7	40.4	32.9	42.2
	NTRP	62.9	81.4	59.3	59.6	67.1	57.8
	n	1178	190	988	1178	190	988
Health	TRP	34.0	--	32.7	35.5	--	38.1
	NTRP	66.0	--	67.3	64.5	--	61.9
	n	48	4	44	48	4	44
Home Economics	TRP	50.1	--	37.0	46.3	--	57.9
	NTRP	49.9	--	63.0	53.7	--	42.1
	n	88	20	68	88	20	68
Marketing	TRP	48.5	40.3	49.0	25.8	14.9	29.2
	NTRP	51.5	59.7	51.0	74.2	85.1	70.8
	n	131	52	79	131	52	79
Trade and Industry	TRP	49.4	53.9	14.0	51.3	52.6	45.7
	NTRP	50.6	46.1	86.0	48.7	47.4	54.3
	n	501	420	81	501	420	81
Total	TRP	41.5	43.0	40.8	43.0	45.4	41.3
	NTRP	58.5	57.0	59.2	57.2	54.6	57.3
	n	2096	813	1283	2096	813	1283

Note: Percentages are weighted; numbers are unweighted.
TRP refers to training-related placement.
NTRP refers to non-training-related placement.

TABLE 4.2

Percent Training Related Placement by Race/Ethnicity and Specialty

		FIRST JOB						CURRENT JOB					
		Total	Black	Hispanic	Native American	White	Other	Total	Black	Hispanic	Native American	White	Other
Agriculture	TRP	39.9	--	22.3	--	45.8	--	48.6	--	0.0	--	34.4	--
	NTRP	60.1	--	87.7	--	54.2	--	51.4	--	100.0	--	65.6	--
	n	150	15	30	12	80	13	150	15	30	12	80	13
Business	TRP	37.1	52.4	36.1	44.2	35.7	33.6	40.4	56.2	33.2	46.5	41.8	27.2
	NTRP	62.9	47.6	63.9	55.8	64.3	66.4	59.6	43.8	66.8	53.5	58.2	72.8
	n	1178	189	257	53	578	101	1178	189	257	53	578	101
Health	TRP	34.0	--	--	--	29.7	--	35.5	--	--	--	30.0	--
	NTRP	66.0	--	--	--	70.3	--	64.5	--	--	--	70.0	--
	n	48	4	13	3	25	3	48	4	13	3	25	3
Home Economics	TRP	50.1	--	38.0	--	--	--	46.3	--	26.6	--	--	--
	NTRP	49.9	--	62.0	--	--	--	53.7	--	73.4	--	--	--
	n	88	7	45	6	23	7	88	7	45	6	23	7
Marketing	TRP	48.5	--	51.7	--	50.1	--	25.8	--	69.5	--	14.3	--
	NTRP	51.5	--	48.3	--	49.9	--	74.2	--	30.5	--	85.7	--
	n	131	16	33	6	66	10	131	16	33	6	66	10
Trade and Industry	TRP	49.4	48.0	55.1	--	42.9	49.8	51.3	44.7	63.2	--	43.5	74.3
	NTRP	50.6	52.0	44.9	--	57.1	50.2	48.7	55.3	36.8	--	56.5	25.7
	n	501	59	120	23	261	38	501	59	120	23	261	38
Total	TRP	41.5	47.6	41.3	77.0	39.3	39.2	43.0	53.5	40.5	55.9	40.4	48.8
	NTRP	58.5	52.4	58.7	23.0	60.7	60.8	57.0	46.5	59.5	44.1	59.6	51.2
	n	2096	290	498	103	1033	172	2096	290	498	103	1033	172

Note: Percentages are weighted; numbers are unweighted.
TRP refers to training-related placement.
NTRP refers to non-training-related placement.

Among the other specialties, the predominant trend is toward a greater percentage of training related employment, with a sharp exception for Marketing. In that case, the percentage drops from 49 for the first job to 26 for the current or most recent.

When race/ethnicity is considered, only the Business and Trade and Industrial specialties have sufficient sample sizes to permit examination of directions. The trends are inconsistent, and differences are not large enough to suggest racial/ethnic effects on changes over time. However, there are substantial differences in percentages of training-related jobs among the groups. Among those trained in the Business specialty, blacks are most likely to have related jobs. Hispanics and those in the "other" category are least likely. Hispanics trained in the Trade and Industrial specialty are consistently most likely to have related jobs with one exception. That is the "Other" category for current or most recent job. The multivariate tables, discussed later, provide a more controlled comparison for gender and race/ethnicity on the incidence of training-related placement.

Socioeconomic Status, and Training

Tables 4.3 and 4.4 present information about the association of training-related placement with Socioeconomic Status (SES). The SES categories represent the status of the respondent's household at age fourteen. Only those respondents who had vocational training and who had jobs are represented in the table. Consequently the SES categories represent membership in the quartile group rather than the actual quartile distribution of the sample. Within this group the overall association of SES with related placement is most positive for those who were in homes at the third quartile at age 14 (tables 4.3 and 4.4). This trend persists across the two points in time, the first job and the current one, except that the lowest quartile shows an increase. Differences are great enough to suggest meaningful policy concerns for low SES respondents. An encouraging trend is the larger percentage of low SES people in current training-related jobs.

The Multivariate Results

Multivariate analysis was chosen to provide the most precise information possible with the available data. As indicated in chapter 3, training-related placement is a dichotomous variable that does not meet the assumptions of the ordinary least squares (OLS) form of regression analysis. However, it is quite robust to violations of these assumptions and usually provides reasonable estimates of the associations in the data. Probit analysis is designed for dichotomous dependent variables, but makes other assumptions that may not be easily or rationally met (for example,

TABLE 4.3

SOCIOECONOMIC STATUS BY SPECIALTY AND RELATED PLACEMENT IN FIRST JOB
(Percentage Distributions)

Specialty	Total n and %	SES Low	2d	3rd	High	Total Row %
Agriculture						
Training-related	53					
	2.7	15.6	13.3	41.1	30.1	100.0
Non training-related	97					
	4.1	13.0	34.5	26.3	26.3	100.0
Business						
Training-related	459					
	20.9	23.5	23.1	29.9	23.5	100.0
Non training-related	719					
	35.4	16.0	20.0	33.8	30.3	100.0
Health						
Training-related	17					
	.7	..	..	..	..	
Non training-related	31					
	1.4	12.9	32.7	42.7	11.7	100.0
Home economics						
Training-related	40					
	1.6	15.7	28.5	33.8	21.9	
Non training-related	48					
	1.6	25.5	40.5	18.0	16.1	100.0
Marketing						
Training-related	60					
	3.3	11.4	41.6	25.8	21.3	
Non training-related	71					
	3.5	11.7	14.1	45.0	29.2	100.0
Trade and industrial						
Training-related	263	17.0	23.5	43.2	16.4	100.0
	12.3					
Non training-related	238					
	12.6	15.9	22.2	32.1	29.8	100.0
TOTAL						
Training-related	892	210	230	281	171	
	41.5	44.5	41.7	45.7	35.0	
Non training-related	1204	266	308	331	299	
	58.5	55.5	58.3	54.3	65.0	
Total n	2096	476	538	612	470	
and %	100.00	14.8	22.1	33.6	29.5	100.0

NOTE: Percentages are weighted; numbers are unweighted. SES categoris represent membership in the category rather than the actual quartile distribution.

TABLE 4.4

SOCIOECONOMIC STATUS BY SPECIALTY
AND RELATED PLACEMENT IN
CURRENT JOB
(Percentage Distributions)

Specialty	Total n and %	SES Low	2d	3rd	High	Total Row%
Agriculture						
Training-related	48					
	2.1	14.7	17.4	39.5	28.5	100.0
Non training-related	102					
	4.7	13.7	29.8	28.9	27.5	100.0
Business						
Training-related	469					
	22.3	16.8	20.5	32.7	30.1	100.0
Non training-related	709					
	34.0	12.7	30.3	31.0	42.5	100.0
Health						
Training-related	22					
	1.0	..	..	..	..	
Non training-related	26					
	1.2	13.6	32.3	32.8	21.4	100.0
Home economics						
Training-related	43					
	1.4	24.8	28.3	24.7	22.2	
Non training-related	45					
	1.7	17.1	39.7	27.0	16.3	100.0
Marketing						
Training-related	39					
	2.0	16.8	25.8	23.8	33.6	
Non training-related	92					
	4.7	9.3	28.1	40.7	21.9	100.0
Trade and industrial						
Training-related	274					
	13.8	19.9	27.4	36.2	16.5	100.0
Non training-related	227					
	11.1	12.1	17.1	39.4	31.4	100.0
TOTAL						
Training-related	895	220	238	263	174	
	42.6	51.6	43.9	43.6	36.0	
Non training-related	1201	256	300	349	296	
	57.4	48.4	56.1	56.4	64.0	
Total n	2096	476	538	612	470	
and %	100.00	14.8	22.1	33.6	29.5	100.0

NOTE: Percentages are weighted; numbers are unweighted. SES categories represent membership in the category rather than the actual quartile distribution.

there may not be an adequately supported theoretical basis for selecting the point on the curve at which to evaluate the coefficients). Our strategy for handling dichotomous dependent variables has been to estimate the relationships with OLS and then confirm them with probit analyses.

Factors Influencing Training-related Placement

Table 4.5 presents the results for three separate aspects of individual job history in relation to training: first job, current or most recent job, and proportion of total working time in a training-related job. This table also provides the evidence that permits some judgment about the factors expected to influence training relatedness. The complete specification of the model is shown in the appendix.

The model explained a relatively small but significant proportion of the variance in training related placement. Three components of the model were consistent across the three aspects of individual job history. These were occupational aspirations, being a Concentrator, and being in the trade and industrial specialty. Two groups also show consistency in training-related job holding, other things being equal. They are Black and Hispanic women.

There are a number of individual and school factors that appear to influence some aspects of the training-relatedness of an individual job history, but do not maintain that influence consistently. Being a Limited Concentrator is one of them. Grade point average in the specialty is positively associated with securing the first and current related jobs, although it is not an influence on the proportion of total employed time spent in training-related work.

Business and Marketing are negatively associated with securing the current training-related job, as well as proportion of time in such jobs, but this association, although negative, is not statistically significant for the first job.

Notably absent from the potential influences are participation in vocational clubs, either moderately or actively, and postsecondary attendance. It is also interesting to note that no race/ethnicity variable shows an influence for men. Being female, however, was significantly associated with a higher proportion of time in training-related jobs regardless of race/ethnicity. The probit estimation (shown in the appendix) confirms the OLS results.

A similar equation was estimated with data from the HS&B sophomores (table 4.6). Because only 2 years of labor market experience were available for this cohort, only the first and current jobs were evaluated. The results are very similar to those reported previously from the NLS-Youth cohort. Vocational

TABLE 4.5

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
NLS-YOUTH

Variable	First Job			Current Job			Proportion of Time TRP		
	Parameter Estimate	t-value	n	Parameter Estimate	t-value	n	Parameter Estimate	t-value	n
Intercept	0.2622	0.789	1832	0.5539	1.896	2087	0.1308	0.562	1809
Concentrator	0.1289*	3.933	503	0.0807*	2.698	568	0.1513*	5.680	511
Limited Concentrator	0.0678*	2.423	847	0.0471	1.822	967	0.0828*	3.533	822
Male									
Hispanic	-0.0177	-0.273	77	0.0369	0.620	89	0.0694	1.315	83
Black	-0.0055	-0.105	145	0.0107	0.218	161	0.0835	1.819	131
Native American	-0.0440	-0.484	31	-0.0527	-0.647	38	-0.0119	-0.152	28
Other	-0.0457	-0.659	57	-0.0865	-1.281	58	-0.0506	-0.838	51
Female									
Hispanic	0.2318*	4.165	181	0.1505*	2.876	196	0.2780*	5.742	175
Black	0.1100*	2.168	285	0.1101*	2.368	307	0.2191*	5.108	284
Native American	0.1763*	2.364	54	0.0786	1.153	64	0.1330*	2.108	53
White	0.0668	1.647	560	0.0520	1.391	672	0.1153*	3.384	565
Other	0.0950	1.558	93	0.0609	1.083	108	0.1292*	2.463	86
Self-esteem	0.0009	0.282	1832	-0.0014	-0.514	2087	0.0002	0.067	1809
Locus of control	-0.0356	-0.682	1832	0.0474	0.982	2087	-0.0254	-0.588	1809
	R^2 = 0.1070 Adj. R^2 = 0.0778 F Statistic = 3.664			R^2 = 0.1069 Adj. R^2 = 0.0813 F Statistic = 4.185			R^2 = 0.1351 Adj. R^2 = 0.1089 F Statistic = 5.171		

NOTE: Equation controlled for region, rural-urban location, age, marital status, presence of children, mother's and father's occupation, school absenteeism, self-report of secondary vocational curriculum, and presence of one or both parents in household at age 14.

*Indicates that the chance probability of an effect this large is $\leq .05$.

TABLE 4.5--Continued

Variable	First Job			Current Job			Time TRP		
	Parameter Estimate	t-value	n	Parameter Estimate	t-value	n	Parameter Estimate	t-value	n
Occupational aspirations	0.1069*	4.417	836	0.0603*	2.692	960	0.0592*	2.951	872
Socioeconomic status	0.0014	0.821	1832	0.0004	0.262	2087	0.0023	1.571	1809
Significant others									
Pro college	-0.0004	-0.040	1832	0.0027	0.303	2087	0.0023	0.279	1809
No college	0.0079	0.729	1832	0.0034	0.313	2087	0.0058	0.582	1809
Agriculture	-0.0183	-0.256	141	-0.1672*	-2.509	158	-0.0755	-1.195	138
Business	-0.0435	-0.750	1119	-0.1206*	-2.234	1290	-0.1339*	-2.625	1150
Health	-0.0705	-0.785	46	-0.1015	-1.207	51	-0.1279	-1.536	34
Marketing	-0.0012	-0.016	125	-0.1882*	-2.849	137	-0.1753*	-2.800	105
Trade and industrial	0.1973*	3.018	318	0.1229*	2.022	357	0.1722*	2.997	310
High school counseling	0.0247	1.463	1226	0.0335*	2.003	1223	0.0115	0.763	1022
Work study	0.1040*	3.854	497	0.0061	0.235	510	0.0436	1.832	422
TV hours	-0.0006	-0.693	1832	0.0010	1.266	2087	0.0005	0.653	1809
Vocational club									
Active	0.0010	0.030	277	0.0349	1.094	303	0.0177	0.506	280
Very active	0.0518	1.263	172	0.0120	0.320	201	0.0629	1.500	172
ASVAB	-0.0001	-0.321	1788	-0.0002	-0.491	2040	0.0001	0.229	1744
GPA major	0.0425*	2.667	1832	0.0446*	3.013	2087	0.0219	1.453	1809
Postsecondary training	0.0167	0.309	281	-0.0260	-0.425	201	0.0032	0.164	725
Ever attend college	-0.0652	-1.059	486	-0.0107	-0.146	581	-0.0047	-0.215	780
Currently enrolled postsecondary	-0.0270	-0.408	288	0.0639	0.869	446			
Community unemployment rate									
First job	-0.0029	-0.651	1832						
Current job				0.0001	0.034	2087			
1979							-0.0056	-0.838	1809
1984							0.0003	0.078	1809

TABLE 4.6

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
HIGH SCHOOL AND BEYOND
SOPHOMORE COHORT

	First Job		Current Job		
Variable	Parameter Estimate	t-value	Parameter Estimate	t-value	n
Intercept	-0.1381	-0.629	-0.4540	-1.944	3147
Concentrator	0.0847*	4.179	0.0928*	4.307	560
Limited Concentrator	0.0329*	2.114	0.0157	.947	964
Male					
Hispanic	-0.0228	-0.909	-0.0028	-0.106	313
Black	-0.0669	-1.928	-0.0125	-0.338	141
Native American	-0.0817	-1.188	-0.0357	-0.488	30
Asian	-0.0878	-1.378	-0.0573	-0.845	36
Female					
Hispanic	0.0358	1.285	0.0599*	2.018	278
Black	0.0213	0.627	0.0640	1.776	173
Native American	-0.0515	-0.689	-0.0518	-0.651	26
White	-0.0168	-0.887	0.0162	0.803	1092
Asian	0.0043	0.078	0.0156	0.269	51
Self-esteem	0.0070	0.604	-0.0009	-0.071	3147
Locus of control	-0.0082	-0.612	-0.0330*	-2.303	3147
Occupational aspirations	0.0224	1.535	0.0443*	2.853	3147
Socioeconomic status	0.0026	0.179	0.0264	1.730	3147
Agriculture	0.1513*	2.563	0.1642*	2.615	98
Business	0.0404	0.949	0.0837	1.846	1976
Health	0.1272	1.507	0.1758	1.958	26
Marketing	0.3047*	4.316	0.0995	1.325	46
Trade and industrial	0.1503*	3.382	0.2045*	4.323	919
Work study	0.0840*	4.843	0.0766*	4.151	683
TV hours	-0.0058	-1.491	0.0030	-0.717	3147
Vocational club					
Active	0.0159	0.756	-0.0097	-0.435	627
Very active	0.0365	1.162	0.0215	0.644	214
Verbal	-0.0008	-0.637	-0.0006	-0.470	3147
R^2	0.0798		0.0676		
Adj. R^2	0.0641		0.0517		
F Statistic	5.062		4.233		

NOTE: Equation controlled for region, rural-urban location, work value, age, marital status, presence of children, expectations of children, mother's and father's occupation, self-report of secondary vocational curriculum, presence of one or both parents in household, school absenteeism, and work experience.

*Indicates that the chance probability of an effect this large is $\leq .05$.

Table 4.6--Continued

Variable	First Job		Current Job		
	Parameter Estimate	t-value	Parameter Estimate	t-value	n
Math	0.0006	0.598	0.0022	1.918	3147
Average grades-12	0.0271	1.830	0.0233	1.479	3147
College attendance	-0.0463*	-2.388	-0.0098	-0.475	2120
Currently enrolled postsecondary	0.0237	1.289	-0.0229	-1.172	1463
Community unemployment rate 1980	-0.0100*	-3.577	-0.0102*	-3.456	3147

Concentrators show their persistent association with training-related work, as does the trade and industrial specialty. For this cohort, however, agriculture and marketing appear to lead at least to first-job training relatedness. Also work experience programs have an effect on securing both first and current related jobs. The effect of concentration and participation in the trade and industrial specialty are reinforced by this evidence.

An equation was also estimated using HS&B senior data. Transcripts were not available for this group, and it was therefore not possible to assess concentration in a way comparable to the previous equations. In this equation, (table 4.7) alternative specifications of the model were tried. One finding of interest was the significance of the specialties. Compared with occupational home economics, the reference group for specialty in all equations, all other specialties are significantly associated with working in training-related jobs. This may be explained by the absence of a measure of concentration. When both concentration and specialty are in the same equation, concentration consistently picks up the significant variance. It is interesting to note the confirmation of the OLS results by the probit results displayed in this table. In those cases where the results differ, probit is significant when OLS does not achieve significance. This suggests that the OLS results are conservative estimates.

Factors Influencing Annual Earnings

An assessment of the dynamic impact of training relatedness was provided by an analysis of 1984 annual earnings. Previous work, reviewed in chapter 2, demonstrates the influence of training-related jobs on hourly and monthly rates of pay for current or most recent jobs. Because jobs change in numerous ways across time, both within and between employment settings, a more comprehensive assessment is appropriate.

The results of this assessment are presented in table 4.8. The postulated positive effect on earnings of training-related placement is confirmed. Previous studies have also shown this relationship with earlier income data than those used in this study. Table 4.8 shows strong relationship between training-relatedness and annual earnings. Grade point average in the specialty explains part of the difference in earnings among the workers in this sample. Those with higher grades earn more.

The gender variable also contributes to explaining variability in average annual earnings. It documents once more the disadvantaged position of women in the labor force. The earnings coefficients are significantly negative for all female groups. The earnings of minority men do not differ sufficiently from the reference group, majority white men, to be reliably significant. As do the women, however, they report lower earnings.

TABLE 4.7

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
CURRENT JOB
HIGH SCHOOL AND BEYOND
SENIOR COHORT

Variable	ORDINARY LEAST SQUARES Parameter Estimate	t-value	n	PROBIT ANALYSIS Coefficient	t-value	effect
Intercept	0.0575	0.338	1443			
Vocational school	0.0274	0.558	91	0.0967	0.577	0.0280
Area vocational school available	-0.0075	-0.303	980	-0.0456	-0.520	-0.0128
Classes taken away from home school	-0.0120	-0.456	355	-0.0477	-0.506	-0.0131
School Size						
1. 0-49	-0.1200	-1.653	38	-0.6329*	-2.003	-0.1287
2. 50-99	-0.0760	-1.637	109	-0.2999	-1.705	-0.0726
3. 100-199	0.0283	0.842	275	0.1015	0.843	0.0290
4. 200-299	0.0946*	2.904	275	0.3438*	3.024	0.1038
5. 300-499	Reference Group			Reference Group		
6. 500-749	0.0373	1.109	247	0.1271	1.072	0.0366
7. 750-1499	0.1840*	2.983	52	0.5994*	2.904	0.2035
8. MD school size	-0.0252	-0.610	113	-0.0830	-0.540	-0.0223
Agriculture	0.1355*	2.309	174	0.8306*	2.602	0.2815
Business	0.2100*	4.008	591	1.1691*	3.902	0.3448
Health	0.1331	1.846	64	0.8064*	2.286	0.2851
Occupational home economics	Reference Group			Reference Group		
Marketing	0.2131*	3.462	125	1.1723*	3.697	0.4288
Trade & industrial	0.4241*	7.859	414	1.8256*	6.057	0.5897
Remedial English	-0.0317	-1.064	542	-0.1244	-1.161	-0.0342
MD remedial English	-0.1763	-1.300	31	-0.5293	-1.039	-0.1139
Remedial math	0.0147	0.488	550	0.0253	0.233	0.0070
MD remedial math	0.1916	1.472	34	0.5199	1.093	0.1731
Advanced algebra	-0.0427	-1.582	413	-0.1292	-1.359	-0.0351
MD advanced algebra	-0.0245	-0.435	60	-0.0854	-0.417	-0.0229
College attendance	0.0400	1.401	566	0.1223	1.216	0.0344
Currently enrolled postsecondary	-0.0345	-0.962	252	-0.1018	-0.800	-0.0275

R^2 = 0.1345
Adj. R^2 = 0.1022
F statistic = 4.156

NOTE: MD refers to missing data. The probit effect estimates are evaluated around the mean of the latent probit variable. For the curriculum index, the effects are instantaneous effects evaluated at the mean of the latent probit variable. Effects of the dichotomous vocational profile variables are evaluated by subtracting predicted value with the profile variable set to 0 from the predicted value with the profile variable set to 1.0, and all other independent variables set to their means.

*Indicates the chance probability of an effect this large is $\leq .05$.

TABLE 4.7--Continued

Variable	ORDINARY LEAST SQUARES Parameter Estimate	t-value	n	PROBIT ANALYSIS Coefficient	t-value	effect
Male						
Hispanic	0.0020	0.049	198	-0.0431	-0.310	-0.0118
Black	-0.0657	-1.368	136	-0.3157	-1.859	-0.0759
Native American	-0.1108	-0.998	15	-0.4417	-1.053	-0.0995
Asian	-0.0885	-0.656	10	-0.4772	-0.933	-0.1055
Other	0.6264	1.499	1	4.6454	0.042	0.8021
Female						
Hispanic	-0.0030	-0.066	203	-0.0863	-0.543	-0.0234
Black	-0.0227	-0.493	223	-0.1465	-0.893	-0.0390
Native American	-0.1908	-1.654	14	-3.6376	-0.178	-0.1979
White	0.0169	0.433	347	0.0231	0.170	0.0064
Asian	-0.1676	-1.378	13	-0.8377	-1.529	-0.1521
Other	0.0486	0.117	1	-2.1128	-0.027	-0.1963
Achievement--10th Grade						
Verbal	-0.0007	-0.342	1443	-0.0092	-1.367	-0.0026
Math	-0.0015	-0.791	1443	-0.0098	-1.525	-0.0027
Socioeconomic status	0.0151	0.833	1443	0.0631	0.968	0.0175
Work value	-0.0117	-0.331	1443	-0.2865*	-2.667	-0.0797
Work experience	0.0011*	3.873	1443	0.0039*	3.793	0.0011
Self-esteem	0.0139	0.718	1443	-0.0274	-0.420	-0.0076
Absenteeism	-0.0046	-1.654	1443	-0.0204*	-1.961	-0.0057
Average grades	0.0298	1.544	1443	0.1137	1.632	0.0316
College aspiration - Y	-0.0252	-0.899	485	-0.0969	-0.981	-0.0266
College aspiration - N	-0.0307	-1.068	447	-0.1874	-1.863	-0.0507
MD college aspiration	-0.0002	-0.003	77	-0.0331	-0.185	-0.0091
Northeast	-0.0848*	-2.349	254	-0.3722*	-2.964	-0.0927
South	-0.0883*	-2.841	618	-0.4017*	-3.762	-0.1088
West	-0.0113	-0.299	235	-0.1304	-0.990	0.0349
Rural	0.1000*	2.583	265	0.2881*	2.140	0.0060
MD rural	0.0438	0.747	53	0.1072	0.529	0.0312
Urban	0.0407	1.373	854	0.0498	0.486	0.0138
Community unemployment rate	-0.0111*	-2.492	1443	-0.0529*	-3.235	-0.0147

TABLE 4.8

LOG OF 1984 EARNINGS
NLS-YOUTH

Variable	Parameter Estimate	t-value	n
Intercept	-8.4569	-2.791	1352
Concentrator	-0.0213	-0.302	377
Limited Concentrator	-0.0433	-0.704	617
Male			
Hispanic	-0.0266	-0.198	68
Black	-0.2263	-1.902	101
Native American	-0.0650	-0.330	23
Other	-0.2318	-1.435	37
Female			
Hispanic	-0.3755*	-2.944	129
Black	-0.5603*	-4.974	203
Native American	-0.5314*	-3.114	37
White	-0.5316*	-5.947	415
Other	-0.3259*	-2.397	67
Self-esteem	0.0097	1.424	1352
Locus of control	0.0836	0.739	1352
Occupational aspirations	0.0447	0.840	649
Socioeconomic status	0.0080	2.117	1352
Significant others			
Pro college	-0.0235	-1.129	1352
No college	0.0232	0.918	1352
Agriculture	0.2360	1.406	103
Business	0.1128	0.832	863
Health	0.4970*	2.272	26
Marketing	0.2937	1.727	71
Trade and industrial	0.1710	1.114	236
High school counseling	0.0725	1.865	810
Work study	-0.0725	-1.166	323
TV hours	0.0008	0.428	1352
Vocational club			
Active	-0.0540	-0.721	214
Very active	-0.0020	-0.022	127
ASVAB	-0.3624	-1.704	1333
GPA major	0.0818*	2.065	1352

R^2 = 0.2524
Adj. R^2 = 0.2201
F Statistic = 7.807

NOTE: Equation controlled for region, rural-urban location, age, marital status, presence of children, mother's and father's occupation, school absenteeism, presence of one or both parents in household at age 14, and months worked full time in the labor force.

*Indicates that the chance probability of an effect this large is $\leq .05$.

Table 4.8--Continued

Variable	Parameter Estimate	t-value	n
College attendance	-0.0740	-1.083	951
Currently enrolled postsecondary	-0.0524	-0.780	620
Proportion time training-related	0.4286*	2.267	1352
Community unemployment rate			
1979	-0.0191	-1.049	1352
1984	-0.0168	-1.944	1352

Possible effects of including both college attending and non-college attending vocational graduates in the sample (i.e. unmeasured differences between persons) upon which the estimates were based were evaluated. Controls were in place for both current and prior attendance. In addition, the equations were run separately for those who attended college, and for those who did not (table 4.9).

The change between the two subgroup and the total were in significance levels rather than direction of association. Black men in the noncollege group earned less than the majority white men but this association was not significant for college attending black men. High community unemployment rates were associated with lower rates of training related job holdings and became significant for the noncollege group.

These changes do not appear to represent a practical threat to the interpretation of the full group equation, but add some additional information.

The Telephone Survey

Because the existing longitudinal data do not contain information on area vocational schools, a small additional sample of these schools was surveyed. In each of 11 randomly selected area vocational schools, 3 vocational teachers were randomly selected. Each of the 33 teachers were asked to report on the vocational status and other characteristics of 3 of their former students. A total of 100 questionnaires were completed (one teacher reported on 4 students). Two were judged to be inappropriate because the individuals had been out of school for more than 8 years. These were not included in the tabulation.

Results

The sample was composed of 98 graduates of area vocational high schools. Three of the graduates were from high income families, 66 from middle income families, and 29 from low income families. The sample included 82 whites, 9 blacks, 6 Hispanics, and 1 Native American. Based on the judgment of the reporting teachers, the sample included of 45 "good" students, 36 "average" students, and 17 "poor" students.

Of the 98 graduates in the survey sample, 78 held jobs related to their high school vocational training. This finding suggests that graduates of area vocational schools are more likely to secure jobs related to their training than are graduates of comprehensive and vocational high schools. The high rate of training-related placement for this sample could also be an artifact of selection bias, since the teachers surveyed were aware of the study's focus.

TABLE 4.9

LOG OF 1984 EARNINGS
NLS-YOUTH

Variable	Non Postsecondary Only: Parameter Estimate	t-value	n	Postsecondary Only: Parameter Estimate	t-value	n
Intercept	-5.3096	-0.948	401	-10.2724	-2.792	951
Concentrator	-0.0861	-0.633	119	-0.0046	-0.054	258
Limited Concentrator	-0.1279	-1.124	174	-0.0261	-0.349	443
Male						
Hispanic	0.0154	0.069	28	-0.1333	-0.776	40
Black	-0.6693*	-2.980	31	-0.1108	-0.773	70
Native American	-0.0442	-0.152	11	-0.1178	-0.431	12
Other	-0.7102*	-2.244	9	-0.0420	-0.219	28
Female						
Hispanic	-0.5565*	-2.409	42	-0.3582*	-2.304	87
Black	-0.6034*	-2.583	38	-0.5999*	-4.543	165
Native	-0.5850	-1.957	14	-0.5337*	-2.489	23
White	-0.7043*	-3.982	132	-0.4843*	-4.578	283
Other	-0.3817	-1.491	20	-0.2870	-1.757	47
Self-esteem	0.0265*	2.088	401	0.0064	0.774	951
Locus of control	-0.0384	-0.184	401	0.1424	1.045	951
Occupational aspirations	-0.0091	-0.094	261	0.0661	1.009	388
Socioeconomic status	0.0135	1.888	401	0.0058	1.256	951
Significant others						
Pro college	-0.0307	-0.817	401	-0.0173	-0.668	951
No college	-0.0090	-0.202	401	0.0337	1.063	951
Agriculture	0.4270	1.346	38	0.2840	1.386	65
Business	0.0775	0.297	232	0.1899	1.173	631
Health	0.4044	0.893	6	0.5676*	2.213	20
Marketing	0.0501	0.160	25	0.3864	1.871	46
Trade and industrial	0.1839	0.637	87	0.1798	0.976	149
High school counseling	0.0398	0.542	245	0.0789	1.671	565
	R^2 = 0.3585			R^2 = 0.2636		
	Adj. R^2 = 0.2584			Adj. R^2 = 0.2194		
	F Statistic = 3.581			F Statistic = 5.944		

NOTE: Equation controlled for region, rural-urban location, age, marital status, presence of children, mother's and father's occupation, school absenteeism, presence of one or both parents in household at age 14, proportion of time in a training-related job, and months worked full-time in the labor force.

*Indicates that the chance probability of an effect this large is $\leq .05$.

Table 4.9-Continued

Variable	Non Postsecondary Only			Postsecondary Only		
	Parameter Estimate	t-value	n	Parameter Estimate	t-value	n
Work study	0.0027	0.023	91	-0.1378	-1.875	232
TV hours	0.0009	0.316	401	0.0017	0.729	951
Vocational club						
Active	-0.0461	-0.348	75	-0.0846	-0.914	139
Very active	-0.1297	-0.686	29	0.0471	0.435	98
ASVAB	0.0023	1.620	394	0.0028*	3.023	939
GPA major	0.1646*	2.245	401	0.0512	1.062	951
Proportion time training-related	0.3830	1.122	401	0.4830*	2.077	951
Community unemployment rate						
1979	-0.0627*	-1.973	401	0.0051	0.226	951
1984	-0.0479*	-3.041	401	-0.0109	-1.021	951

Of the 78 graduates in training-related placement, only 28 earned hourly wages higher than the national average for vocational graduates in training-related placement ($6.13 per hour).[3] Thirteen graduates were working in jobs unrelated to their high school training; of these, three had hourly wages above $6.13. Of the 37 women in the sample who held jobs related to their training, only 6 earned wages above $6.13. Twenty-two men out of 39 with training related placement earned above average wages.

The sample was composed of 53 women and 45 men. Seven women and 23 men earned wages above $6.13, whereas 38 women and 16 men earned wages below $6.13 (table 4.10).[4] This wage discrepancy could be attributed in part to the program of vocational training undertaken in high school. Higher percentages of people in male-dominated specialties (agriculture and trade and industry) earn above average wages than in female-dominated specialities (business, marketing, health, and home economics). However, in this sample, even the women in agriculture and trade and industry earned wages below average. The more specialized programs (travel services, accounting, and dental assisting) yielded the highest wages for the women in the sample. This finding suggests that neither the specialty selected nor having training-related placement is enough to compensate for gender differences in wages.

The telephone survey also examined how graduates found their jobs and whether a placement office was present in the school. Twenty-two of the employed students in the sample attended schools with a placement office. Of these, 10 found their jobs through a counselor or placement officer. Seventy employed members of the sample attended schools without a placement office. Of these, only one found a job through a school counselor. In the schools without placement offices, more students (by percentage) found jobs through their own efforts or through their teachers than in the schools with placement offices.

Only one of the 11 jobs found through school counselors or placement offices yielded wages above the $6.13 average, whereas 50 percent and 33 percent, respectively, of jobs found through teachers or through one's own efforts yielded above average wages. The three graduates who extended their high school co-op jobs earned hourly wages below $6.13. They did, however, have the benefit of immediate employment.

The majority of students in the sample found their jobs within 3 months, which supports the theory that immediate employment may be an important factor in young people's job choices.

3These figures were estimated from the NLS-Youth data.

4These figures were estimated from the NLS-Youth data.

TABLE 4.10

TELEPHONE SURVEY RESULTS

	SPECIALTY												
	Agriculture		Business		Marketing		Health		Home Economics		Trade & Industrial		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Training-Related Placement													
Wages Above Average	7	0	0	1	0	0	1	2	1	3	13	0	28
Wages Below Average	4	3	0	7	1	7	2	6	0	7	8	1	46
Total	11	3	0	8	1	7	3	8	1	10	21	1	74
Non-Training-Related Placement													
Wages Above Average	0	0	0	0	0	0	0	0	0	1	1	0	2
Wages Below Average	0	1	0	2	0	0	0	1	0	2	2	1	9
Total	0	1	0	2	0	0	0	1	0	3	3	1	11
TOTAL	11	4	0	10	1	7	3	9	1	13	24	2	85

NOTE: Totals do not reflect the sample totals due to missing data. Average wage estimated from NLS-Youth data.

Limitations of the Findings

These findings should be viewed as suggestive only because of the small sample size and possible selection bias. Although the schools and teachers were randomly selected and representativeness of vocational specialty was controlled, the students were not randomly selected by each teacher. Rather, instructions directed toward securing representativeness were provided to the teachers, but no controls were in place to assure this. However, information from nationally representative data provides similar results in job attainment and wages, thus suggesting that teacher selection bias was not severe. Until better data become available, the indications of this survey are plausible. A replication with better controls is, nevertheless, recommended.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

There are two kinds of conclusions supported by the analyses conducted. First, a careful reanalysis of the earnings effects of training-related placement in the most recent available longitudinal data confirms the significant contribution of such placement in the early years of participation in the work force. These results are shown in table 4.8 in chapter 4. The positive association of earnings with training-related placement confirms it as an appropriate objective of high school vocational education.

In addition, the notion that training-related placement tends to diminish over time is not supported by these data. These two general observations were not subjected to specific test in the design of this study, but are offered as confirming evidence of extensive earlier work in the first instance, and as a provocative hypothesis in the second.

Secondly, there are several school related and personal characteristics that are associated with higher rates of training-related placements. They are not all uniform, however, and may suggest alternative policy implications.

The initial cross-tabulations reported in chapter 4 demonstrate that personal characteristics (gender, race/ethnicity) interact in some interesting ways with school program characteristics (program specialty). It appears quite likely that there is an interaction between labor market conditions and training-related placement that changes over time for men in the business specialty and for women in the trade and industrial specialty. A possible explanation may be that employers are even more reluctant to hire the youngest workers, just out of high school, (see Osterman, 1980, for example) when these are in unconventional work roles for their gender. An alternative explanation may be that these young people need to acquire further training before they can successfully compete for these unconventional jobs. To verify which of these explanations is the most plausible, additional data are needed. The data should describe in detail the actual job search strategies and motivations for job taking of the young people who have been trained in non-traditional specialties. To the extent that policy continues to be directed toward encouraging nontraditional work roles, it appears that the focus of such policy should be expanded beyond the training into the transition from training to work.

Two race/ethnic groups also showed substantial association with differences in training relatedness. Vocationally trained Black young people who were in the business specialty had the highest consistent likelihood of having and keeping a training-related job. Because of the gender loading of the business specialty, this group was probably primarily women. Also, vocationally trained Hispanic young people with trade and industrial specialties had and maintained a high rate of training-related placement. This group was probably primarily men, again because of the gender loading of the specialty.

Policy incentives for improved training-related placement can move in two directions for the racial/ethnic groups. Either the young people can be encouraged to move into specialties more successful for their group, or program changes designed to improve placement for all can be undertaken.

The multivariate analysis was designed to verify the associations with training-related placement of personal, program, and community characteristics suggested in the model, while holding constant a group of controls that might also be associated with both training-related placement and the characteristics of interest. Three characteristics emerge as consistent with the expectations of the model.

They are vocational concentration, gender, and occupational aspirations. Being a vocational Concentrator is consistently associated with getting and keeping a training-related job. Higher grade point average (GPA) in the specialty has the same association in two of the three analyses. Hispanic and Black women are more likely than others to get and retain training-related jobs. Also, occupational aspirations are associated with an increased likelihood of training-related job holding. Occupational aspirations as defined in this study refer to the consistency of the training with the intended type of occupation in later years.

The findings from the multivariate analysis confirm the earlier suggestions based on the cross-tabulations for race/ethnicity, but show that gender is a significant component in those results. The findings for program, aspirations, and GPA in the specialty suggest a strong component of motivation in the outcomes. It is not possible to separate these two associations causally in the analysis as conducted, but encouraging clear understanding of one's reasons for following a certain specialty would assist in the decision to concentrate and require one to be aware of the intended occupation. (The availability of all specialty programs to all students is not addressed by this point.) The significance of this approach is also borne out by the findings regarding specialty. Only trade and industrial specialists were consistently more likely than others to be in training-related jobs. In contrast, Business and Marketing graduates are less likely than the reference group (vocational Home Economics) to have current jobs that were training-related,

and even first jobs were no more likely to be in the field for which one was trained, other things held constant. This conclusion is presented as tentative because it is quite possible that unmeasured explanatory variables that were present before graduation may have exerted an influence. Nevertheless, an exhaustive analysis of the available data explained only a small proportion of the variability in job placement among individuals and for individuals across time.

Several interesting findings emerge, however, that have some further implications for policy. First, as previously noted, substantial concentration in a vocational specialty (being a Concentrator) is one of the most influential factors in getting and keeping a training-related job. Further, a degree of concentration that is sufficient to secure such a job (e.g., a Limited Concentrator with three credits of typing) does not associate with continuing in a related job. This finding is intuitively self-evident, but cannot be dismissed because many other similarly self evident school-related characteristics did not consistently associate with training-related job placement. The other characteristic that is associated consistently with holding a training-related job is the trade and industrial specialty. Agriculture is associated with securing a current or most recent training-related job, and in the HS&B data, both the first and current or most recent jobs.

Next, the absence of effects for such school activities as counseling and participating in vocational clubs is an unexpected outcome. Work study showed an influence on having a training related job in the HS&B data and in the first NLS job, but not among the more mature NLS-Youth respondents. The data do not say that no one is helped by these activities, but rather that the proportion of students helped by them is too small to be a significant overall factor.

Finally, the lack of consistent results for gender and race/ethnicity suggests that the problem of getting and holding a training-related job is general for male vocational graduates rather than to specific sub-groups, as it is among women. The easy explanation of no jobs available is not entirely satisfactory, because county unemployment rates do not consistently appear to contribute to the problem. It may be, however, that job training is not in the areas of employer need. The suggestion of relatively high success in placement by the area vocational schools may point to an institutional fault as the cause of the low placement rates for the majority of vocationally educated young people, because most of them do not appear to attend such schools. Most are educated in comprehensive high schools. This area vocational school placement success should be confirmed before radical policy change is based upon it. The findings from the analysis of average annual earnings confirm analyses performed and reported earlier (e.g., Campbell et al., 1985) with different specifications and earlier data. Keeping in mind that this analysis is confined to only those young people who had significant

vocational concentration in high school, some results are noted. Previous work had shown an advantage in hourly wages and monthly earnings for secondary vocational program graduates in training-related jobs. This advantage also appears when average annual earnings are examined.

The significant major control factors influencing earnings are labor force experience and gender. These are not new results, but are reconfirmations of previous findings with new data and alternative analyses. It has been shown that high school curriculum influences labor market experience, and that gender influences high school curriculum (see, for example, Campbell et al., 1985). Policy may therefore be reasonably directed through curriculum to ameliorate the influence of these major factors.

There can be no reasonable doubt about the existence and seriousness of the wage inequities for women. The results for minorities are less clear. Only among blacks is there a consistent disadvantage. Because dropouts are not included in the study, and also because labor market experience may be limited by membership in a minority group, it is certainly possible that the labor market problems of other minorities did not emerge even where they exist. The problem for women is acute enough to be seen in spite of these potential limitations. Therefore, it is judged the most severe.

Recommendations

The findings of this study clearly indicate that current recommendations for evaluation of vocational education are in touch in part with the way young people are using vocational education in the high school. The evaluation criteria in the Carl Perkins Act and in several states (e.g., Florida and North Carolina) specify training-related placement as a major outcome. If the policy of the nation is to continue in that direction, then some changes in practice need to be encouraged. If, on the other hand, an alternative function of vocational education is to be acknowledged and encouraged, different changes are suggested. Further, the reconfirmation of the serious wage equity problem for women needs attention in any policy arena that may affect it. These considerations suggest the following recommendations.

At the Federal and State Level

- Federal policy should encourage the multiple roles of secondary vocational education. Incentives and sanctions must be in place to encourage continued placement and to assist those who experience a delay in securing such placement. The role of high school vocational education as an alternative or supplemental avenue of learning, should be encouraged, perhaps through Federal funding.

- Although vocational education alone cannot correct the earnings equity problem for women, the heavy predominance of women in the lower paying business curriculum should be discouraged, perhaps by offering incentives for programs that encourage women to enroll in trade and industrial programs. New specialties that lead to higher paying careers that are not gender tied should also be developed through grants or other incentives. If an alternative learning option (that is, work attitudes, basic skills, problem solving) is the objective, then the state policy emphasis should be upon enriching the general learning opportunities in vocational classes.

- Counseling has not shown strong association with achieving training-related placement, because the major emphasis has traditionally been upon college attendance rather than job finding. Therefore, an emphasis upon job placement may be in order.

At the Local Level

- Programs need to be closely tied to the local labor market to achieve a higher rate of training-related placement. Students should be aware of the need for a commitment to the specialty as a career goal. Teachers need to have close contact with employers in the local labor market and schools should be encouraged to shift their vocational training to the area vocational centers. To avoid the potential dead-end of a premature career decision, however, schools should follow a different approach. Incorporation of general learning in the vocational curriculum should be rewarded. Students should be encouraged to make career decisions, but keep also to keep their options open. Graduation requirements should be structured to allow dual vocational and academic concentration.

As a final comment, the tentativeness of the data supporting these recommendations is emphasized. We do not know what forces are operating most influentially on the decisions that young people make in their early career planning.

A very intensive study of a cohort of young people would be most helpful. If two or three schools could be selected and their students followed intensively for at least six years, it would be possible to identify some of the forces that are key influences on decision-making and the options that are available in the decision process. Such an activity would permit more appropriate structur-

ing of the major longitudinal data collections by identifying factors that should be taken into account.

As stated, this approach assumes that the failure of the postulated model to be verified by the analyses was due to unidentified forces operating in the labor market or prior to high school graduation. Two other explanations are also plausible. One is the lack of data to assess the possible effects of elements included in the model but not operationalized. Such data should be included in planned data collections because the model was based on existing theory that has some support in other areas of inquiry. Another explanation lies in the problems of measurement inherent in inferring from actions such as job taking, what the underlying causes may be. Carefully designed research on the influence of significant others, the effect of self perception, and the process of career decision making should take into account the measurement problem in a serious way in order to improve the factual basis for policy determination. Having acknowledged the problems, however, this information is presented as carefully and systematically developed material that suggests directions for policy development.

APPENDIX

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
FIRST JOB
NLS-YOUTH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	58	48.0952	0.8292	3.664	0.0001
ERROR	1773	401.2389	0.2263		
C TOTAL	1831	449.3341			

ROOT MSE	0.4757		
R-SQUARE	0.1070	DEP MEAN	0.4312
ADJ R-SQ	0.0778	C.V.	110.3178

VARIABLE LABEL	PARAMETER ESTIMATES	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEPT	-0.2622	-0.789	0.4301
NORTHEASTERN REGION	0.0497	1.269	0.2046
SOUTHERN REGION	0.0654	2.098	0.0360
WESTERN REGION	-0.0177	-0.468	0.6402
REGION NOT REPORTED	0.1646	2.661	0.0079
RESPONDENT LIVED IN A RURAL AREA	-0.0088	-0.346	0.7293
MISSING DUMMY FOR RURAL	0.3594	0.748	0.4544
FEMALE ONLY IN HOUSEHOLD AT AGE 14	-0.1097	-0.908	0.3639
BOTH PARENTS IN HOUSEHOLD AT 14	0.0355	0.804	0.4215
CONCENTRATOR	0.1289	3.933	0.0001
LIMITED CONCENTRATOR	0.0678	2.423	0.0155
SELF REPORT VOCATIONAL STUDY	0.0310	1.105	0.2693
HISPANIC MALE	-0.0177	-0.273	0.7849
BLACK MALE	-0.0055	-0.105	0.9164
NATIVE AMERICAN MALE	-0.0440	-0.484	0.6286
OTHER MALE	-0.0457	-0.659	0.5103
HISPANIC FEMALE	0.2318	4.165	0.0001
BLACK FEMALE	0.1100	2.186	0.0289
NATIVE AMERICAN FEMALE	0.1763	2.364	0.0182
WHITE FEMALE	0.0668	1.647	0.0997
OTHER FEMALE	0.0950	1.558	0.1195
SOCIOECONOMIC STATUS	0.0014	0.821	0.4118
SELF-ESTEEM	0.0009	0.282	0.7779
VOC: AGRICULTURE MAJOR	-0.0183	-0.256	0.7980
VOC: B/O MAJOR	-0.0435	-0.750	0.4536
VOC: HEALTH MAJOR	-0.0705	-0.785	0.4325
VOC: OE MAJOR	-0.0012	-0.016	0.9869
VOC: T/I MAJOR	0.1973	3.018	0.0026
LIVED IN URBAN AREA AT AGE 14	0.0717	0.444	0.6574
LIVED IN RURAL AREA AT AGE 14	0.0718	0.443	0.6581
OCCUPATIONAL ASPIRATION AT 35 RELATED	0.1069	4.417	0.0001
AGE WHEN RECEIVED MOST RECENT JOB	0.0004	0.027	0.9788
AGE AS OF 1985 INTERVIEW	0.0132	1.045	0.2960
MARRIED WHEN RECD MOST RECENT JOB	-0.0045	-0.079	0.9371
CHILDREN WHEN RECD MOST RECENT JOB	-0.0312	-0.657	0.5110
AGREE: SCHOOL OFFERS GOOD COUNSELING	0.0247	1.463	0.1435
MISSING DUMMY FOR JOB COUNSELING	-0.0049	-0.116	0.9076
CURRENTLY ENROLLED IN COLLEGE	-0.0270	-0.408	0.6835
RESPONDENT HAS HAD A SCHOOL WORK-STUDY	0.1040	3.854	0.0001
ANY POST-SECONDARY TRAINING	0.0167	0.309	0.7574
UNEMPLOYMENT RATE FOR COUNTY	-0.0029	-0.651	0.5150
LOCUS OF CONTROL	-0.0356	-0.682	0.4956
HOURS PER WEEK SPENT WATCHING TV	-0.0006	-0.693	0.4886
MISSED MORE THAN 20 DAYS IN EITHER YR	-0.1204	-2.660	0.0079
MISSED MORE THAN 20 DAYS IN BOTH YRS	-0.1058	-2.493	0.0128
MISSING ABSENCE DATA	-0.1209	-2.899	0.0038
PARTICIPATED MODERATELY IN VOC CLUB	0.0010	0.030	0.9758
PARTICIPATED HIGHLY IN VOC CLUB	0.0518	1.263	0.2068
MISSING DEGREE OF PARTIC DATA	0.0054	0.104	0.9170
MOTHERS OCC RELATED WHEN R WAS 14	-0.0055	-0.235	0.8140
MISSING MOTHERS OCC WHEN R WAS 14	-0.1493	-2.574	0.0101
FATHERS OCC RELATED WHEN R WAS 14	-0.0310	-1.023	0.3064
MISSING FATHERS OCC WHEN R WAS 14	0.0135	0.285	0.7754
MISSING ASVAB TEST SCORES	0.1110	1.493	0.1356
TOTAL OF 10 SCORING AREAS OF ASVAB	-0.0001	-0.321	0.7483
G.P.A. FROM MAJOR COURSES	0.0425	2.667	0.0077
SIG. OTH. WANTS R TO GET BACC	-0.0004	-0.040	0.9680
SIG. OTH. NOT WANT R TO GET BACC	0.0079	0.729	0.4658
EVER ENROLLED IN POSTSECONDARY	-0.0652	-1.059	0.2896

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
FIRST JOB
NLS-YOUTH

PROBIT ANALYSIS

VARIABLE	COEFFICIENT	STD. ERROR	T-RATIO	(SIG.LVL)	MEAN OF X	STD.DEV.OF X
ONE	-2.13173	0.9140	-2.332	(0.01968)	1.0000	0.00000E+00
NEAST	0.142216	0.1071	1.327	(0.18442)	0.13865	0.34567
SOUTH	0.187670	0.86609E-01	2.180	(0.02927)	0.39083	0.48807
WEST	-0.414662E-01	0.1051	-0.395	(0.69318)	0.17576	0.38072
NCAREA	0.453994	0.1691	2.686	(0.00724)	0.39847E-01	0.19565
RURAL	-0.212191E-01	0.86966E-01	-0.305	(0.76068)	0.31878	0.46613
MURURAL	3.05284	16.09	0.189	(0.85048)	0.54585E-03	0.23363E-01
FEMHH14	-0.313078	0.3409	-0.918	(0.35838)	0.98253E-02	0.98662E-01
BPINHH14	0.102495	0.1236	0.833	(0.40472)	0.81168	0.39107
CENCNTR	0.363832	0.85885E-01	4.048	(0.00005)	0.27456	0.44647
INCONC	0.197486	0.77906E-01	2.535	(0.01124)	0.46234	0.49872
SRVOCTRN	0.836493E-01	0.7653E-01	1.093	(0.27439)	0.24345	0.42928
HISPMAL	-0.528571E-01	0.1826	-0.290	(0.77211)	0.42031E-01	0.20071
BLACKMAL	-0.567790E-03	0.1459	-0.004	(0.99690)	0.79148E-01	0.27004
NATIVMAL	-0.131976	0.2578	-0.512	(0.60875)	0.16921E-01	0.12901
OTHRMAL	-0.137405	0.1967	-0.698	(0.48490)	0.31114E-01	0.17367
HISPFEM	0.659249	0.1540	4.282	(0.00002)	0.98794E-01	0.29847
BLACKFEM	0.327113	0.1390	2.353	(0.01863)	0.15557	0.36254
NATIVFEM	0.496751	0.2026	2.457	(0.01422)	0.29476E-01	0.16918
WHITEFEM	0.204124	0.1133	1.802	(0.07157)	0.30568	0.46082
OTHRFEM	0.282961	0.1691	1.673	(0.09427)	0.50764E-01	0.21958
SES	0.407666E-02	0.4730E-02	0.862	(0.38842)	-2.9885	7.9224
ESTEEM	0.288107E-02	0.8549E-02	0.337	(0.73610)	32.328	3.8640
AGMAJ1	-0.359557E-01	0.1964	-0.183	(0.85460)	0.76965E-01	0.26661
BIMAJ1	-0.116392	0.1573	-0.740	(0.45920)	0.61081	0.48770
HEALTHM1	-0.171827	0.2447	-0.702	(0.48248)	0.25109E-01	0.15650
DEMAJ1	0.669483E-02	0.1905	0.035	(0.97196)	0.88231E-01	0.28321
TIMAJ1	0.551375	0.1778	3.101	(0.00193)	0.17358	0.37885
UREAN14	0.177217	0.4409	0.402	(0.68771)	0.72325	0.44751
RURAL14	0.177650	0.4428	0.401	(0.68827)	0.27183	0.44503
OC35REL	0.295408	0.6628E-01	4.457	(0.00001)	0.45633	0.49823
AGE	0.243853E-02	0.3902E-01	0.062	(0.95017)	18.378	1.3288
ABILNES	0.348794E-01	0.3462E-01	1.008	(0.31365)	23.076	2.0122
MARRIED	-0.743425E-02	0.1570	-0.047	(0.96223)	0.46943E-01	0.21158
CHILDREN	-0.247143E-01	0.1292	-0.656	(0.51166)	0.76965E-01	0.26661
JCEDCUM1	0.693663E-01	0.4639E-01	1.495	(0.13487)	3.1798	0.67577
MDJCUM1	-0.140476E-01	0.1163	-0.121	(0.90361)	0.33079	0.47062
CLLSTL	-0.861124E-01	0.1826	-0.472	(0.63717)	0.15721	0.36409
WKSTUDY	0.279767	0.7355E-01	3.804	(0.00014)	0.27129	0.44475
PSTRN	0.449607E-01	0.1481	0.304	(0.76137)	0.15338	0.36046
UNEMPLMT	-0.844734E-02	0.1242E-01	-0.680	(0.49631)	5.2374	3.0212
LCONTROL	-0.105976	0.1427	-0.738	(0.46069)	0.60767	0.22835
TYHOURS	-0.162242E-02	0.2309E-02	-0.703	(0.48223)	14.191	13.610
MEDABS	-0.331845	0.1234	-2.690	(0.00715)	0.19050	0.39280
HIGHABS	-0.292447	0.1153	-2.535	(0.01123)	0.31277	0.46375
MISSABS	-0.332430	0.1136	-2.930	(0.00338)	0.40502	0.49103
ACTMEMBR	0.223124E-02	0.9273E-01	0.024	(0.98080)	0.15993	0.36665
VACTMEMB	0.137402	0.1116	1.232	(0.21808)	0.99345E-01	0.29921
MDACTIVE	0.171531E-01	0.1415	0.121	(0.90352)	0.55677E-01	0.22936
MUDCC14	-0.110376E-01	0.6435E-01	-0.161	(0.85649)	0.44596	0.49721
MDPUBCC	-0.444092	0.1680	-2.643	(0.00822)	0.41485E-01	0.19948
FAUCC14	-0.882100E-01	0.8315E-01	-1.061	(0.28875)	0.58788	0.49235
MCFAUCC	0.378648E-01	0.1310	0.289	(0.77247)	0.20633	0.40478
MCASVAB	0.293541	0.2018	1.455	(0.14577)	0.24017E-01	0.15315
ASVAB	-0.265039E-03	0.9411E-03	-0.282	(0.77823)	193.12	46.644
MAJGPA	0.120627	0.4380E-01	2.754	(0.00588)	2.7022	0.82660
WANTBACC	-0.131502E-02	0.2495E-01	-0.053	(0.95797)	3.6463	3.3442
NCBACC	0.215654E-01	0.2966E-01	0.727	(0.46721)	2.7353	2.6399
EVERENRL	-0.184603	0.1693	-1.090	(0.27557)	0.26528	0.44160

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FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
CURRENT JOB
NLS-YOUTH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	58	54.0613	0.9321	4.185	0.0001
ERROR	2028	451.7298	0.2227		
C TOTAL	2086	505.7911			

ROOT MSE	0.4720		
R-SQUARE	0.1069	DEP MEAN	0.4126
ADJ R-SQ	0.0813	C.V.	114.3996

VARIABLE LABEL	PARAMETER ESTIMATES	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEPT	0.5539	1.896	0.0581
NORTHEASTERN REGION	0.0664	1.860	0.0631
SOUTHERN REGION	0.0227	0.777	0.4375
WESTERN REGION	-0.0199	-0.571	0.5678
REGION NOT REPORTED	0.1285	2.166	0.0305
RESPONDENT LIVED IN A RURAL AREA	-0.0174	-0.669	0.5034
MISSING DUMMY FOR RURAL	-0.0540	-0.460	0.6455
FEMALE ONLY IN HOUSEHOLD AT AGE 14	0.0647	0.551	0.5814
BOTH PARENTS IN HOUSEHOLD AT 14	0.0125	0.293	0.7692
CONCENTRATOR	0.0807	2.698	0.0070
LIMITED CONCENTRATOR	0.0471	1.822	0.0686
SELF REPORT VOCATIONAL STUDY	0.0707	1.648	0.0996
HISPANIC MALE	0.0369	0.620	0.5351
BLACK MALE	0.0107	0.218	0.8275
NATIVE AMERICAN MALE	-0.0527	-0.647	0.5175
OTHER MALE	-0.0865	-1.281	0.2002
HISPANIC FEMALE	0.1505	2.876	0.0041
BLACK FEMALE	0.1101	2.368	0.0180
NATIVE AMERICAN FEMALE	0.0786	1.153	0.2489
WHITE FEMALE	0.0520	1.391	0.1643
OTHER FEMALE	0.0609	1.083	0.2789
SOCIOECONOMIC STATUS	0.0004	0.262	0.7934
SELF-ESTEEM	-0.0015	-0.514	0.6070
VOC: AGRICULTURE MAJOR	-0.1672	-2.509	0.0122
VOC: B/O MAJOR	-0.1206	-2.234	0.0256
VOC: HEALTH MAJOR	-0.1015	-1.207	0.2276
VOC: DE MAJOR	-0.1882	-2.849	0.0044
VOC: T/I MAJOR	0.1229	2.022	0.0433
LIVED IN URBAN AREA AT AGE 14	-0.4076	-2.686	0.0073
LIVED IN RURAL AREA AT AGE 14	-0.3878	-2.545	0.0110
OCCUPATIONAL ASPIRATION AT 35 RELATED	0.0603	2.692	0.0072
AGE WHEN RECEIVED MOST RECENT JOB	-0.0491	-6.486	0.0001
AGE AS OF 1985 INTERVIEW	0.0439	3.869	0.0001
MARRIED WHEN RECD MOST RECENT JOB	0.0099	0.233	0.8158
CHILDREN WHEN RECD MOST RECENT JOB	-0.0170	-0.568	0.5703
AGREE: SCHOOL OFFERS GOOD COUNSELING	0.0335	2.003	0.0453
MISSING DUMMY FOR JOB COUNSELING	0.0132	0.331	0.7410
CURRENTLY ENROLLED IN COLLEGE	0.0639	0.869	0.3851
RESPONDENT WAS HAD A SCHOOL WORK-STUDY	0.0061	0.235	0.8141
ANY POST-SECONDARY TRAINING	-0.0260	-0.425	0.6706
UNEMPLOYMENT RATE FOR COUNTY	0.0001	0.034	0.9727
LOCUS OF CONTROL	0.0474	0.982	0.3263
HOURS PER WEEK SPENT WATCHING TV	0.0010	1.266	0.2057
MISSED MORE THAN 20 DAYS IN EITHER YR	-0.0201	-0.471	0.6379
MISSED MORE THAN 20 DAYS IN BOTH YRS	-0.0116	-0.290	0.7719
MISSING ABSENCE DATA	-0.0155	-0.394	0.6938
PARTICIPATED MODERATELY IN VOC CLUB	0.0349	1.094	0.2742
PARTICIPATED HIGHLY IN VOC CLUB	0.0120	0.320	0.7491
MISSING DEGREE OF PARTIC DATA	0.0714	1.443	0.1492
MOTHERS OCC RELATED WHEN R WAS 14	-0.0503	-2.306	0.0212
MISSING MOTHERS OCC WHEN R WAS 14	-0.1175	-2.119	0.0342
FATHERS OCC RELATED WHEN R WAS 14	-0.0133	-0.474	0.6356
MISSING FATHERS OCC WHEN R WAS 14	0.0068	0.150	0.8807
MISSING ASVAB TEST SCORES	0.0483	0.676	0.4992
TOTAL OF 10 SCORING AREAS OF ASVAB	-0.0002	-0.491	0.6237
G.P.A. FROM MAJOR COURSES	0.0446	3.013	0.0026
SIG. OTH. WANTS R TO GET BACC	0.0027	0.303	0.7621
SIG. OTH. NOT WANT R TO GET BACC	0.0034	0.313	0.7546
ANY POSTSECONDARY TRAINING	-0.0107	-0.146	0.8840

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
CURRENT JOB
NLS-YOUTH

PROBIT ANALYSIS

VARIABLE	COEFFICIENT	STD. ERROR	T-RATIO	(SIG.LVL)	MEAN OF X	STD.DEV.OF X
ONE	0.169496	0.8317	0.204	(0.83851)	1.0000	0.00000E+00
NEAST	0.181585	0.9896E-01	1.835	(0.06651)	0.14717	0.35436
SOUTH	0.666837E-01	0.8118E-01	0.821	(0.41142)	0.38543	0.48681
WEST	-0.567308E-01	0.9728E-01	-0.604	(0.54602)	0.17498	0.38004
NCAREA	0.371765	0.1660	2.240	(0.02510)	0.36913E-01	0.18849
RURAL	-0.41998E-01	0.7189E-01	-0.584	(0.55908)	0.25791	0.43750
MDRURAL	-0.121779	0.3226	-0.378	(0.70578)	0.81496E-02	0.89928E-01
EEMHF14	0.178566	0.3289	0.543	(0.58714)	0.91083E-02	0.95025E-01
BFINHF14	0.316937E-01	0.1182	0.268	(0.78853)	0.82454	0.38045
CONCNTR	0.227204	0.8313E-01	2.733	(0.00627)	0.27181	0.44500
LCONC	0.135263	0.7251E-01	1.866	(0.06211)	0.46357	0.49879
SRVUCTRK	0.192787	0.1187	1.625	(0.10422)	0.75264E-01	0.26388
HISPMAL	0.905894E-01	0.1662	0.545	(0.58560)	0.42665E-01	0.20215
BLACKMAL	0.254183E-01	0.1364	0.186	(0.85212)	0.77181E-01	0.26694
NATIVMAL	-0.155003	0.2304	-0.673	(0.50102)	0.18217E-01	0.13377
OTHRMAL	-0.269159	0.1981	-1.359	(0.17420)	0.27804E-01	0.16445
HISPFEM	0.448589	0.1462	3.069	(0.00215)	0.93480E-01	0.29117
BLACKFEM	0.322640	0.1300	2.481	(0.01300)	0.14717	0.35436
NATIVFEM	0.239208	0.1899	1.260	(0.20775)	0.30681E-01	0.17249
WHITEFEM	0.160722	0.1059	1.518	(0.12907)	0.32215	0.46741
OTHRFEM	0.187252	0.1566	1.196	(0.23171)	0.51774E-01	0.22162
SES	0.140599E-02	0.4445E-02	0.316	(0.75176)	-2.8677	7.7818
ESTEEM	-0.430909E-02	0.7961E-02	-0.541	(0.58832)	32.470	3.8964
ACMAJ1	-0.426647	0.1839	-2.288	(0.02216)	0.75264E-01	0.26388
BDMAJ1	-0.328337	0.1465	-2.241	(0.02502)	0.61841	0.48589
HEALTHM1	-0.274328	0.2286	-1.200	(0.23006)	0.24449E-01	0.15447
DEMAJ1	-0.525466	0.1835	-2.864	(0.00418)	0.65676E-01	0.24777
IIMAJ1	0.350376	0.1655	2.117	(0.03425)	0.17114	0.37672
URBAN14	-1.15931	0.4678	-2.478	(0.01320)	0.72675	0.44574
RURAL14	-1.11052	0.4691	-2.367	(0.01792)	0.26846	0.44326
CC35REL	0.164856	0.6210E-01	2.655	(0.00794)	0.46021	0.49853
ACE	-0.134517	0.2121E-01	-6.340	(0.00000)	20.977	2.4833
AGE1985	0.119036	0.3152E-01	3.805	(0.00014)	23.469	2.1869
MARRIED	0.277311E-01	0.1184	0.234	(0.81475)	0.66635E-01	0.24945
CHILDREN	-0.455093E-01	0.8307E-01	-0.548	(0.58382)	0.18456	0.38804
JOBCOUN1	0.970103E-01	0.4671E-01	2.077	(0.03780)	3.1713	0.63174
MOJCOUN1	0.319744E-01	0.1106	0.289	(0.77247)	0.41419	0.49270
COLSTU	0.174008	0.2058	0.845	(0.39783)	0.21381	0.41000
WKSTUDY	0.148495E-01	0.7238E-01	0.205	(0.83744)	0.24449	0.42989
PSTRA	-0.787634E-01	0.1710	-0.461	(0.64504)	0.96357E-01	0.29515
UNEMPLMT	0.346185E-03	0.8158E-02	0.042	(0.96615)	7.7628	4.1966
LCONTROL	0.139448	0.1344	1.037	(0.29960)	0.61230	0.22666
TVHOURS	0.273732E-02	0.2126E-02	1.288	(0.19767)	14.427	13.908
MEDABS	-0.455559E-01	0.1176	-0.387	(0.69852)	0.18696	0.38907
HIGHABS	-0.277436E-01	0.1101	-0.252	(0.80098)	0.31352	0.46403
MISSABS	-0.396702E-01	0.1079	-0.367	(0.71325)	0.41131	0.49216
ACTMEMBR	0.904044E-01	0.8869E-01	1.019	(0.30806)	0.15292	0.36000
VACTMEMB	0.238824E-01	0.1040	0.230	(0.81845)	0.10163	0.30223
MDACTIVE	0.188604	0.1372	1.375	(0.16925)	0.50815E-01	0.21967
MDOCC14	-0.140535	0.6065E-01	-2.317	(0.02051)	0.44247	0.49680
MDMDOCC	-0.337179	0.1559	-2.163	(0.03057)	0.38830E-01	0.19324
FADCC14	-0.372445E-01	0.7781E-01	-0.479	(0.63219)	0.59875	0.49027
MDFADCC	0.206365E-01	0.1255	0.164	(0.86944)	0.19319	0.39490
MDASVAB	0.140902	0.1959	0.719	(0.47193)	0.22531E-01	0.14844
ASVAE	-0.411371E-03	0.8731E-03	-0.471	(0.63753)	195.59	47.041
MAJGPA	0.122656	0.4131E-01	2.969	(0.00299)	2.7015	0.82238
WANTBACC	0.451393E-02	0.2508E-01	0.180	(0.85718)	3.2004	3.3521
MCBACC	0.133707E-01	0.2975E-01	0.449	(0.65313)	2.4046	2.6295
EVERENRL	-0.252286E-01	0.2057	-0.123	(0.90237)	0.27852	0.44838

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PROPORTION OF TIME IN TRAINING-RELATED PLACEMENT
NLS-YOUTH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	53	42.4711	0.8013	5.171	0.0001
ERROR	1755	271.9750	0.1550		
C TOTAL	1808	314.4461			

ROOT MSE	0.3937		
R-SQUARE	0.1351	DEP MEAN	0.4781
ADJ R-SQ	0.1089	C.V.	82.3346

VARIABLE LABEL	PARAMETER ESTIMATES	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEPT	0.1308	0.562	0.5742
NORTHEASTERN REGION	0.0200	0.626	0.5314
SOUTHERN REGION	-0.0085	-0.317	0.7512
WESTERN REGION	-0.0322	-0.967	0.3335
REGION NOT REPORTED	0.0910	1.364	0.1726
RESPONDENT LIVED IN A RURAL AREA	-0.0355	-1.475	0.1403
FEMALE ONLY IN HOUSEHOLD AT AGE 14	-0.0420	-0.394	0.6935
BOTH PARENTS IN HOUSEHOLD AT 14	0.0077	0.264	0.7917
CONCENTRATOR	0.1513	5.680	0.0001
LIMITED CONCENTRATOR	0.0828	3.533	0.0004
HISPANIC MALE	0.0694	1.315	0.1886
BLACK MALE	0.0835	1.819	0.0691
NATIVE AMERICAN MALE	-0.0119	-0.152	0.8795
OTHER MALE	-0.0506	-0.838	0.4023
HISPANIC FEMALE	0.2780	5.742	0.0001
BLACK FEMALE	0.2191	5.108	0.0001
NATIVE AMERICAN FEMALE	0.1330	2.108	0.0352
WHITE FEMALE	0.1153	3.384	0.0007
OTHER FEMALE	0.1292	2.463	0.0139
SOCIOECONOMIC STATUS	0.0023	1.571	0.1164
SELF-ESTEEM	0.0002	0.067	0.9468
VOC: AGRICULTURE MAJOR	-0.0755	-1.195	0.2322
VOC: B/O MAJOR	-0.1339	-2.625	0.0087
VOC: HEALTH MAJOR	-0.1279	-1.536	0.1248
VOC: DE MAJOR	-0.1753	-2.800	0.0052
VOC: T/I MAJOR	0.1722	2.997	0.0028
LIVED IN URBAN AREA AT AGE 14	-0.0088	-0.387	0.6987
AGE AS OF 1985 INTERVIEW	-0.0013	-0.144	0.8854
UNEMPLOYMENT RATE FOR COUNTY IN 79	-0.0056	-0.838	0.4019
UNEMPLOYMENT RATE FOR COUNTY IN 84	0.0003	0.078	0.9382
OCCUPATIONAL ASPIRATION AT 35 RELATED	0.0592	2.951	0.0032
MARRIED WHEN RECD FIRST JOB AFTER H.S.	0.0440	1.952	0.0511
CHILDREN WHEN RECD FIRST JOB AFTER H.S.	-0.0066	-0.267	0.7892
AGREE: SCHOOL OFFERS GOOD COUNSELING	0.0115	0.763	0.4453
MISSING DUMMY FOR JOB COUNSELING	-0.0164	-0.461	0.6448
EVER ENROLLED IN COLLEGE	-0.0047	-0.215	0.8295
ANY POST-SECONDARY TRAINING EVER	0.0032	0.164	0.8700
RESPONDENT HAS HAD A SCHOOL WORK-STUDY	0.0436	1.832	0.0671
LOCUS OF CONTROL	-0.0254	-0.588	0.5568
MOTHERS OCC RELATED WHEN R WAS 14	-0.0239	-1.249	0.2119
FATHERS OCC RELATED WHEN R WAS 14	0.0215	0.959	0.3378
HOURS PER WEEK SPENT WATCHING TV	0.0005	0.653	0.5137
MISSED MORE THAN 20 DAYS IN EITHER YR	-0.0444	-1.537	0.1245
MISSED MORE THAN 20 DAYS IN BOTH YRS	-0.0235	-0.735	0.4627
MISSING ABSENCE DATA	-0.0301	-1.241	0.2147
PARTICIPATED MODERATELY IN VOC CLUB	0.0323	1.127	0.2599
PARTICIPATED HIGHLY IN VOC CLUB	0.0177	0.506	0.6129
MISSING DEGREE OF PARTIC DATA	0.0629	1.500	0.1338
MISSING ASVAB TEST SCORES	0.1207	1.751	0.0801
TOTAL OF 10 SCORING AREAS OF ASVAB	0.0001	0.229	0.8188
G.P.A. FROM MAJOR COURSES	0.0219	1.453	0.1465
SIG. OTH. WANTS R TO GET BACC TRAINING	0.0023	0.279	0.7803
SIG. OTH. DOESNT WANT R TO GET BACC	0.0058	0.582	0.5605
TOTAL TIME IN LABOR FORCE	0.0031	4.868	0.0001

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
FIRST JOB
HIGH SCHOOL AND BEYOND
SOPHOMORE COHORT

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	53	36.23008511	0.68358651	5.062	0.0001
ERROR	3093	417.64662	0.13502962		
C TOTAL	3146	453.87671			

ROOT MSE	0.3674638	R-SQUARE	0.0798
DEP MEAN	0.1747696	ADJ R-SQ	0.0641
C.V.	210.2561		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEP	1	-0.138655231	0.21955212	-0.629	0.5294
NRTHEST1	1	-0.024018481	0.01813548	-1.324	0.1855
SOUTH1	1	-0.024329864	0.01856629	-1.309	0.1906
WEST1	1	-0.025371964	0.02192055	-1.157	0.2472
BLKALD3	1	-0.015211763	0.02360854	-0.644	0.5196
HISPANO3	1	0.005666852	0.01695830	0.334	0.7383
PRCLNCD	1	0.08465134	0.02025806	4.179	0.0001
FRLCONCD	1	0.03286465	0.01554471	2.114	0.0346
VERBAL2	1	-0.000785977	0.00123482	-0.637	0.5243
MATHSQ22	1	0.000640017	0.00107316	0.596	0.5491
HISPMALE	1	-0.02277472	0.02505673	-0.909	0.3635
BLCKMALE	1	-0.06685010	0.03467413	-1.928	0.0540
NATVMALE	1	-0.08171836	0.06860811	-1.188	0.2351
ASIAMALE	1	-0.08763362	0.06375480	-1.378	0.1684
HISPFEML	1	0.03564239	0.02789428	1.285	0.1989
BLCKFEML	1	0.02125497	0.03388800	0.627	0.5306
NATVFEML	1	-0.05154820	0.07482274	-0.689	0.4909
WHITFEML	1	-0.01678735	0.01893005	-0.887	0.3753
ASIAFEML	1	0.004286248	0.05468549	0.078	0.9375
SESINC1	1	0.002575528	0.01435134	0.179	0.8576
WORKVAL2	1	0.02391401	0.02760815	0.860	0.3899
CONCPT1	1	0.007010060	0.01160918	0.604	0.5460
AVGRAD1	1	-0.01062075	0.01371501	-0.774	0.4388
AVGRAD2	1	0.02710639	0.01481453	1.830	0.0674
DISTEUD	1	0.30466443	0.07058218	4.316	0.0001
BUSNESD	1	0.04043256	0.04259121	0.949	0.3425
HEALTHD	1	0.12715739	0.08438287	1.507	0.1319
AGRICD	1	0.15129603	0.05903389	2.563	0.0104
TRINDD	1	0.15034184	0.04445983	3.382	0.0007
HHFEML1	1	-0.000044493	0.03054999	-0.001	0.9988
HHMALE1	1	0.07847617	0.04727414	1.660	0.0970
HHPRNT1	1	0.02017879	0.02318252	0.870	0.3841
VOC1	1	0.03086360	0.01881791	1.631	0.1029
CULATT3	1	-0.04630775	0.01939057	-2.388	0.0170
CASPVOC2	1	0.02241310	0.01459667	1.535	0.1248
AGSTJB13	1	0.01321398	0.00574279	2.301	0.0214
PARJB13	1	-0.006986168	0.01222612	-0.573	0.5664
CHLDJB13	1	-0.07701577	0.04576056	-1.683	0.0925
CENRPS3	1	0.02370331	0.01838483	1.289	0.1974
CPNSCT2	1	0.08403277	0.01735175	4.843	0.0001
EXCHLD2	1	0.000970571	0.00525490	0.185	0.8535
CUNEMR80	1	-0.009985789	0.00279182 6	-3.577	0.0004
LOCUS2	1	-0.008226646	0.01344819	-0.612	0.5408
WRKEXP3	1	0.000552504	0.00026714 6	2.068	0.0387
VOCEDCMD	1	0.005587265	0.05810086	0.096	0.9234
MOCVOCMD	1	-0.009376157	0.01936676	-0.484	0.6286
FOCVOCMD	1	0.004506016	0.01933878	0.233	0.8158
CPNSCTMD	1	-0.003478706	0.05935777	-0.059	0.9533
TVHOURS2	1	-0.005800535	0.00389043 8	-1.491	0.1361
FOCVOC1	1	-0.011704 5	0.02127307	-0.550	0.5822
MOCVOC1	1	0.02487366	0.01728957	1.439	0.1504
ABSTSM2	1	-0.000451618	0.00179292 9	-0.252	0.8011
VOCEDC2	1	0.01585539	0.02096470	0.756	0.4495
VOCEDCL2	1	0.03650005	0.03140997	1.162	0.2453

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
FIRST JOB
HIGH SCHOOL AND BEYOND
SOPHOMORE COHORT

PROBIT ANALYSIS

VARIABLE	COEFFICIENT	STD. ERROR	T-RATIO (SIG.LVL)	MEAN OF X	STD.DEV.OF X
CNE	-2.64020	0.9142	-2.888 (0.00388)	1.0000	0.00000E+00
NRTHEST1	-0.971556E-01	0.7595E-01	-1.280 (0.20069)	0.26025	0.43884
SOUTH1	-0.105339	0.7751E-01	-1.359 (0.17414)	0.28662	0.45226
WEST1	-0.105096	0.9242E-01	-1.137 (0.25545)	0.16079	0.36759
RURALD3	-0.745080E-01	0.9825E-01	-0.759 (0.44813)	0.16204	0.36915
LRGBARL3	0.125376E-01	0.7070E-01	0.177 (0.85924)	0.65141	0.47660
FRCURCD	0.309239	0.8053E-01	3.840 (0.00012)	0.17798	0.38263
FRLCURCD	0.144202	0.6548E-01	2.205 (0.02747)	0.50645	0.49998
VERBAL2	-0.274922E-02	0.5116E-02	-0.537 (0.59102)	52.588	8.2188
MATHSW22	-0.246197E-02	0.4478E-02	-0.550 (0.58247)	52.572	8.2172
HISPMALE	-0.642594E-01	0.1026	-0.627 (0.53063)	0.99460E-01	0.29946
BLCKMALE	-0.298639	0.1350	-1.920 (0.05488)	0.44805E-01	0.20681
NATVMALE	-0.375713	0.3144	-1.194 (0.23236)	0.95329E-02	0.97185E-01
ASIANMALE	-0.356674	0.2822	-1.264 (0.20642)	0.14438E-01	0.11848
HISPFEML	-0.220817	0.1148	-1.924 (0.05441)	0.88328E-01	0.28384
BLCKFEML	0.157918	0.1428	1.106 (0.26911)	0.54978E-01	0.22818
NATVFEML	-0.221772	0.3748	-0.592 (0.55401)	0.82618E-02	0.90611E-01
WHITFEML	-0.376715E-01	0.8269E-01	-0.456 (0.64870)	0.41360	0.49248
ASIAFEML	0.686398E-01	0.2248	0.305 (0.76026)	0.14048E-01	0.11726
SESINC1	0.526705E-02	0.5984E-01	0.088 (0.92986)	0.32825E-03	0.18117
WORKVAL2	0.998073E-01	0.1184	0.843 (0.39913)	2.5418	0.48177
CONCPT1	0.309346E-01	0.4915E-01	0.629 (0.52905)	2.7473	0.46106
AVGRAD1	-0.331905E-01	0.5648E-01	-0.588 (0.55677)	2.8544	0.44178
AVGRAD2	0.1040066	0.6094E-01	1.708 (0.08772)	2.8218	0.43978
LISTECD	1.12994	0.3002	3.763 (0.00017)	0.14617E-01	0.12003
BUSNESD	0.246037	0.2286	1.295 (0.19536)	0.42740	0.49484
HEALTHD	0.627805	0.3639	1.725 (0.08446)	0.85618E-02	0.90833E-01
AGRICD	0.741151	0.5741	1.726 (0.08424)	0.41360E-01	0.19928
TRINDD	0.747433	0.2334	3.196 (0.00140)	0.29204	0.45477
MMFEML1	0.749319E-02	0.1301	0.058 (0.95407)	0.12647	0.33243
MMMALE1	0.289418	0.1891	1.530 (0.12594)	0.24786E-01	0.15560
MMPKNT1	0.852306E-01	0.9880E-01	0.863 (0.38833)	0.17248	0.37793
VOC1	0.120903	0.7446E-01	1.624 (0.10442)	0.17248	0.37793
COLATT3	-0.180715	0.8118E-01	-2.226 (0.02608)	0.67364	0.46895
CASPVCC2	0.100335	0.6235E-01	1.609 (0.10754)	0.55195	0.49737
AGSTJE13	0.592761E-01	0.2435E-01	2.435 (0.01490)	12.625	1.2778
MARJ613	-0.243698	0.5496	-0.443 (0.65741)	0.99778	0.47118E-01
CHLDJE13	-0.369917	0.2148	-1.722 (0.08499)	0.22243E-01	0.14750
GENKPS3	0.965762E-01	0.7938E-01	1.217 (0.22364)	0.46489	0.49884
CPWSCT2	0.317570	0.6793E-01	4.675 (0.00000)	0.22022	0.41452
EXCHLD2	0.445818E-02	0.2231E-01	0.200 (0.84162)	2.4216	1.4348
CUNEMR6C	-0.406480E-01	0.1203E-01	-3.403 (0.00067)	7.5678	2.4430
LUCUS2	-0.352703E-01	0.5581E-01	-0.632 (0.52737)	3.7301	0.55347
KKKEXP3	0.224867E-02	0.1143E-02	1.967 (0.04924)	58.202	27.449
TVHOURS2	-0.217276E-01	0.1632E-01	-1.332 (0.18302)	2.5922	1.7899
VOCEDCMP	0.319736E-01	0.2443	0.131 (0.89590)	0.13664E-01	0.11611
VOCVOCMP	-0.412177E-01	0.8050E-01	-0.537 (0.59138)	0.14928	0.35711
FOCVLCMP	0.149100E-01	0.8134E-01	0.183 (0.85456)	0.20273	0.40210
CPWSCTMP	0.390876E-03	0.2457	0.002 (0.99873)	0.13028E-01	0.11341
FOCVOC1	-0.660779E-01	0.8998E-01	-0.734 (0.46274)	0.83450	0.32897
VOCYOC1	-0.114343	0.7423E-01	-1.540 (0.12346)	0.75342	0.39713
ABSYSM2	-0.236536E-02	0.7489E-02	-0.316 (0.75211)	2.9766	3.8474
VOCEDC2	0.639988E-01	0.8415E-01	0.761 (0.44693)	0.21296	0.40688
VOCEDCL2	0.104238	0.1213	0.859 (0.39026)	0.69125E-01	0.25221

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FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
CURRENT JOB
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ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	53	34.28240398	0.64683781	4.233	0.0001
ERROR	3093	472.58763	0.15279264		
C TOTAL	3146	506.87003			

ROOT MSE	0.390887	R-SQUARE	0.0676
DEP MEAN	0.201795	ADJ R-SQ	0.0517
C.V.	193.7159		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=	PROB > |T|
INTERCEP	1	-0.45396367	0.23354701	-1.944	0.0520
NRTHEST1	1	-0.01510963	0.01929148	-0.783	0.4336
SOUTH1	1	-0.01727622	0.01977103	-0.874	0.3823
WEST1	1	-0.00786561	0.02331783	-0.337	0.7359
RURAL03	1	0.005143814	0.02511321	0.205	0.8377
URBAND3	1	0.01437579	0.01803924	0.797	0.4256
PRCLNCD	1	0.09282007	0.02154937	4.307	0.0001
PRLCONCD	1	0.01565097	0.01653558	0.947	0.3440
VEREAL2	1	-0.00061137	0.001312853	-0.470	0.6383
MATHSD22	1	0.002163705	0.001138545	1.918	0.0552
HISPMALE	1	-0.00282610	0.02665392	-0.106	0.9156
BLCKMALE	1	-0.01245472	0.03688436	-0.338	0.7356
NATVMALE	1	-0.03568625	0.07319414	-0.488	0.6259
ASIAMALE	1	-0.05732132	0.06781872	-0.845	0.3981
HISPFEML	1	0.01987774	0.02967235	2.018	0.0437
BLCKFEML	1	0.06400827	0.03604812	1.776	0.0759
NATVFEML	1	-0.05177631	0.07959216	-0.651	0.5154
WHITFEML	1	0.01616225	0.02013671	0.803	0.4223
ASIAFEML	1	0.01564625	0.05817130	0.269	0.7879
SESINC1	1	0.02640992	0.01526614	1.730	0.0837
WORKVAL2	1	0.03042755	0.02958072	1.029	0.3037
CONCPT1	1	-0.00080820	0.01234919	-0.071	0.9431
AVGRAD1	1	0.003986407	0.01458924	0.273	0.7847
AVGRAD2	1	0.02330108	0.01575885	1.479	0.1393
DISTEDD	1	0.09947580	0.07508129	1.325	0.1853
BUSNESD	1	0.08365183	0.04530610	1.846	0.0649
HEALTHD	1	0.17575150	0.08976168	1.958	0.0503
AGRICD	1	0.16419180	0.06279688	2.615	0.0090
TRINDD	1	0.20446610	0.04729383	4.323	0.0001
HHFEML1	1	0.007013268	0.03249733	0.216	0.8291
HHMALE1	1	0.09589341	0.05028754	1.907	0.0566
HHPRNT1	1	0.05140864	0.02466024	2.085	0.0372
VOC1	1	-0.00073409	0.02012380	-0.036	0.9709
COLATT3	1	-0.00979620	0.02062655	-0.475	0.6349
CASEVOC2	1	0.04429599	0.01552711	2.853	0.0044
AGSTJB13	1	0.01098391	0.006108308	1.798	0.0722
MARJB13	1	0.09501574	0.15022829	0.632	0.5271
CHLDJB13	1	-0.02366981	0.04867748	-0.487	0.6265
CENRPS3	1	-0.02292660	0.01955673	-1.172	0.2412
CPRSCT2	1	0.07662100	0.01845780	4.151	0.0001
EXCHLD2	1	0.003530749	0.005589321	0.632	0.5276
CUNEMR80	1	-0.01026497	0.002969785	-3.456	0.0006
LUCLS2	1	-0.03295156	0.01430542	-2.303	0.0213
ARREXP3	1	0.000796029	0.000284174	2.801	0.0051
VOCEDCMD	1	0.008023868	0.06180438	0.130	0.8967
MDCVOCMD	1	0.01014149	0.02062253	0.492	0.6229
FDCVOCMD	1	0.002789664	0.02057145	0.136	0.8921
CPRSCTMD	1	-0.01736687	0.06314141	-0.275	0.7833
TVHOURS2	1	-0.00296817	0.004138426	-0.717	0.4733
FDCVOC1	1	0.01879435	0.02262908	0.831	0.4063
MDCVOC1	1	0.05281819	0.01839166	2.872	0.0041
ABSTSM2	1	0.004404513	0.001907216	2.309	0.0210
VOCEDC2	1	-0.00970417	0.02230105	-0.435	0.6635
VOCEDCL2	1	0.02150792	0.03341213	0.644	0.5198

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
CURRENT JOB
HIGH SCHOOL AND BEYOND
SOPHOMORE COHORT

PROBIT ANALYSIS

VARIABLE	COEFFICIENT	STD. ERROR	T-RATIO (SIG.LVL)	MEAN OF X	STD.DEV.OF X
ONE	-3.74691	0.9495	-3.946 (0.00008)	1.0000	0.00000E+00
NRTHEST1	-0.568899E-01	0.7252E-01	-0.785 (0.43274)	0.26025	0.43884
SOUTH1	-0.616916E-01	0.7466E-01	-0.826 (0.40864)	0.28662	0.45226
WEST1	-0.238325E-01	0.8769E-01	-0.272 (0.78579)	0.16079	0.36739
RURALD3	0.603364E-02	0.9424E-01	0.064 (0.94895)	0.14204	0.34915
URBANL3	0.485897E-01	0.6809E-01	0.714 (0.47548)	0.65141	0.47660
PRCUNCD	0.311437	0.7757E-01	4.015 (0.00006)	0.17795	0.38253
PRLLCUPCD	0.6745O9E-01	0.6287E-01	1.073 (0.28331)	0.30632	0.46104
VERBAL2	-0.183213E-02	0.4962E-02	-0.369 (0.71195)	55.538	8.5398
MATHSC22	0.842664E-02	0.4342E-02	1.941 (0.05228)	53.572	9.7729
MISPMALE	-0.130953E-01	0.9912E-01	-0.132 (0.89490)	0.99460E-01	0.29933
BLCKMALE	-0.211232E-01	0.1419	-0.149 (0.88167)	0.44805E-01	0.20691
NATVMALE	-0.159258	0.2863	-0.556 (0.57806)	0.95329E-02	0.97185E-01
ASIAMALE	-0.218498	0.2623	-0.833 (0.40487)	0.11439E-01	0.10636
MISPFEML	0.286826	0.1124	2.551 (0.01074)	0.88338E-01	0.28383
BLCKFEML	0.311134	0.1368	2.275 (0.02291)	0.54973E-01	0.22796
NATVFEML	-0.290382	0.3842	-0.756 (0.44979)	0.82618E-02	0.90533E-01
WHITFEML	0.104908	0.7952E-01	1.319 (0.18707)	0.34700	0.47609
ASIAFEML	0.103401	0.2220	0.466 (0.64134)	0.16206E-01	0.12629
SESINC1	0.101559	0.5796E-01	1.752 (0.07976)	0.32825E-03	0.57577
NORMVAL2	0.115652	0.1131	1.022 (0.30667)	2.3120	0.24253
CONCPT1	0.214256E-03	0.4681E-01	0.005 (0.99635)	3.7973	0.60109
AVGRAD1	0.112516E-01	0.5451E-01	0.206 (0.83646)	2.8564	0.74139
AVGRAD2	0.906818E-01	0.5896E-01	1.538 (0.12406)	2.9218	0.69378
LISTEDD	0.636133	0.3275	1.943 (0.05206)	0.14617E-01	0.12003
BUSNESD	0.555920	0.2442	2.276 (0.02283)	0.62790	0.48344
HEALTHD	0.901554	0.3730	2.417 (0.01566)	0.82618E-02	0.90533E-01
AGRICD	0.888872	0.2877	3.090 (0.00200)	0.31141E-01	0.17373
TRINLD	1.01193	0.2492	4.060 (0.00005)	0.29202	0.45477
HMFEML1	0.407611E-01	0.1272	0.321 (0.74856)	0.12647	0.33243
HMMALE1	0.336892	0.1838	1.832 (0.06689)	0.24786E-01	0.15550
HMPRNT1	0.202875	0.9730E-01	2.085 (0.03707)	0.75437	0.43053
VOC1	0.521309E-02	0.7351E-01	0.071 (0.94346)	0.17255	0.37791
COLATT3	-0.183018E-01	0.7640E-01	-0.240 (0.81067)	0.67366	0.46895
CASPVCC2	0.167771	0.5941E-01	2.824 (0.00474)	0.55195	0.49737
AGSTJE13	0.424254E-01	0.2329E-01	1.822 (0.06852)	17.825	1.2756
PARJE13	0.402989	0.6291	0.641 (0.52181)	0.99778	0.47118E-01
CHLDJE13	-0.915240E-01	0.1865	-0.491 (0.62354)	0.22243E-01	0.14750
CENRFS3	-0.998213E-01	0.7405E-01	-1.348 (0.17765)	0.46489	0.49884
CPWSCT2	0.271533	0.6679E-01	4.066 (0.00005)	0.22022	0.41175
EXCHLD2	0.146651E-01	0.2117E-01	0.693 (0.48856)	2.4210	1.2796
CUNEMKBG	-0.401246E-01	0.1156E-01	-3.472 (0.00052)	7.5670	2.4430
LOCUS2	-0.124552	0.5379E-01	-2.316 (0.02058)	3.7301	0.55347
WRKEXP3	0.302743E-02	0.1105E-02	2.740 (0.00614)	58.202	27.449
TVHOURS2	-0.977526E-02	0.1568E-01	-0.623 (0.53308)	2.5922	1.7599
VOCEDCME	0.235359E-01	0.2368	0.099 (0.92084)	0.13664E-01	0.11611
VOCVLCME	0.421303E-01	0.7637E-01	0.552 (0.58119)	0.14998	0.35711
VOCVLCMD	0.598579E-02	0.7801E-01	0.077 (0.93883)	0.20273	0.40210
CPWSCTME	-0.605480E-01	0.2399	-0.252 (0.80073)	0.13028E-01	0.11341
VOCVLC1	0.675668E-01	0.8703E-01	0.776 (0.43751)	0.83450	0.32897
VOCVLC1	0.208097	0.7225E-01	2.880 (0.00397)	0.75342	0.39713
ABSTSM2	0.158568E-01	0.6913E-02	2.294 (0.02181)	2.9766	3.8474
VOCEDC2	-0.355775E-01	0.8267E-01	-0.430 (0.66692)	0.21296	0.40688
VOCEDCL2	0.724803E-01	0.1205	0.601 (0.54757)	0.69125E-01	0.25221

FACTORS INFLUENCING TRAINING-RELATED PLACEMENT
CURRENT JOB
HIGH SCHOOL AND BEYOND
SENIOR COHORT
PROBIT ANALYSIS

VARIABLE	COEFFICIENT	STD. ERROR	T-RATIO	(SIG.LVL)	MEAN OF X	STD.DEV.OF X
SPAGRICD	0.830552	0.3152	2.602	(0.00928)	0.12058	0.32575
SPBUSD	1.16906	0.2996	3.902	(0.00010)	0.40956	0.45192
SPDSTEDD	1.17228	0.3171	3.697	(0.00022)	0.26625E-01	0.28136
SPHLTHD	0.806427	0.3527	2.286	(0.02223)	0.44352E-01	0.20595
SPTANDID	1.82561	0.3014	6.057	(0.00000)	0.28690	0.45247
VOCSCHLD	0.967067E-01	0.1676	0.577	(0.56389)	0.63063E-01	0.24316
AKVOCSAV	-0.456231E-01	0.8776E-01	-0.520	(0.60314)	0.67914	0.46697
NRTHEST1	-0.372157	0.1256	-2.964	(0.00304)	0.17602	0.38097
SOUTH1	-0.401720	0.1066	-3.762	(0.00017)	0.42827	0.49500
WEST1	-0.130445	0.1317	-0.990	(0.32199)	0.16286	0.36936
RURAL02	0.288107	0.1347	2.140	(0.03239)	0.19053	0.39224
RURURAL2	0.107238	0.2029	0.529	(0.59712)	0.36729E-01	0.18816
URBAN02	0.497787E-01	0.1023	0.486	(0.62664)	0.61438	0.47800
SCHS121	-0.632535	0.3160	-2.002	(0.04517)	0.26334E-01	0.16016
SCHS122	-0.299892	0.1759	-1.705	(0.08815)	0.75537E-01	0.26435
SCHS123	0.101543	0.1265	0.803	(0.39932)	0.19058	0.39268
SCHS124	0.343764	0.1137	3.024	(0.00249)	0.19058	0.39268
SCHS126	0.127662	0.1185	1.078	(0.28361)	0.17117	0.37670
SCHS127	0.569409	0.2064	2.759	(0.00579)	0.36036E-01	0.18644
MUDSCH	-0.830354E-01	0.1537	-0.540	(0.58893)	0.78309E-01	0.26875
HISPMALE	-0.431438E-01	0.1392	-0.310	(0.75661)	0.13721	0.34419
BLCKMALE	-0.315736	0.1698	-1.859	(0.06256)	0.94248E-01	0.29227
CHAMORE	-0.476896E-01	0.9416E-01	-0.506	(0.61459)	0.24602	0.43064
NATVMALE	-0.441691	0.4196	-1.053	(0.29254)	0.10395E-01	0.10146
ASINMALE	-0.477234	0.5117	-0.933	(0.35097)	0.69300E-02	0.82988E-01
OTHRMALE	4.64543	111.5	0.042	(0.96676)	0.69300E-03	0.26322E-01
HISPFEML	-0.863662E-01	0.1588	-0.543	(0.58685)	0.14068	0.34761
BLCKFEML	-0.146540	0.1641	-0.893	(0.37178)	0.15454	0.36159
NATVFEML	-3.63762	20.49	-0.178	(0.85906)	0.97020E-02	0.98054E-01
WHIFEML	0.230636E-01	0.1355	0.170	(0.86486)	0.24047	0.42752
ASINFEML	-0.837702	0.5478	-1.529	(0.12623)	0.90090E-02	0.94520E-01
OTHRFEML	-2.11279	78.31	-0.027	(0.97847)	0.69300E-03	0.26322E-01
SESINCL	0.630585E-01	0.6515E-01	0.968	(0.33306)	-0.12809E-01	0.66303
AUVAL6BR	-0.129163	0.9506E-01	-1.359	(0.17423)	0.29859	0.44827
MAVAL6RA	-0.854122E-01	0.2048	-0.417	(0.67668)	0.41560E-01	0.19970
REMENG	-0.124398	0.1071	-1.161	(0.24565)	0.38377	0.48624
MREMENG	-0.529300	0.5096	-1.039	(0.29900)	0.21463E-01	0.14504
REMMATH	0.252645E-01	0.1086	0.233	(0.81583)	0.35033	0.48221
MREMMATH	0.5149932	0.4757	1.093	(0.27440)	0.23502E-01	0.15173
COLEXP9Y	-0.969058E-01	0.9881E-01	-0.981	(0.32672)	0.35487	0.48575
COLEXP9N	-0.187432	0.1006	-1.863	(0.06250)	0.32687	0.46907
MCOLEXP	-0.331089E-01	0.1791	-0.185	(0.85330)	0.53361E-01	0.22483
VERBAL1	-0.922742E-02	0.6750E-02	-1.367	(0.17159)	46.150	7.9307
MATHSD21	-0.978911E-02	0.6420E-02	-1.525	(0.12733)	45.463	8.5593
WORKVAL1	-0.286513	0.1074	-2.667	(0.00765)	2.6522	0.31971
CONCPT1	-0.273755E-01	0.6515E-01	-0.420	(0.67454)	3.8701	0.51418
ABSTSM1	-0.203512E-01	0.1038E-01	-1.961	(0.04963)	3.2886	4.6112
CONEMKBO	-0.529310E-01	0.1636E-01	-3.235	(0.00122)	1.7204	2.5599
AVGRAD1	0.113654	0.6965E-01	1.632	(0.10274)	2.1159	0.61423
COLA113	0.122252	0.1006	1.216	(0.22407)	0.39224	0.48842
CENREG3	-0.101772	0.1212	-0.800	(0.42361)	0.17464	0.37979
MREXP3	0.393337E-02	0.1031E-02	3.793	(0.00015)	60.602	28.613

LOG OF 1984 EARNINGS
NLS-YOUTH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	56	345.1453	6.1633	7.807	0.0001
ERROR	1295	1022.3280	0.7894		
C TOTAL	1351	1367.4730			

ROOT MSE	0.8885		
R-SQUARE	0.2524	DEP MEAN	8.8764
ADJ R-SQ	0.2201	C.V.	10.0098

VARIABLE LABEL	PARAMETER ESTIMATES	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEPT	-8.4569	-2.791	0.0053
NORTHEASTERN REGION	0.0580	0.693	0.4886
SOUTHERN REGION	0.0651	0.915	0.3601
WESTERN REGION	0.1183	1.361	0.1738
REGION NOT REPORTED	0.0464	0.073	0.9421
RESPONDENT LIVED IN A RURAL AREA	-0.0889	-1.376	0.1690
FEMALE ONLY IN HOUSEHOLD AT AGE 14	0.2863	1.132	0.2577
BOTH PARENTS IN HOUSEHOLD AT 14	0.0029	0.037	0.9708
CONCENTRATOR	-0.0213	-0.302	0.7629
LIMITED CONCENTRATOR	-0.0433	-0.704	0.4816
HISPANIC MALE	-0.0266	-0.198	0.8435
BLACK MALE	-0.2263	-1.902	0.0573
NATIVE AMERICAN MALE	-0.0650	-0.330	0.7417
OTHER MALE	-0.2318	-1.435	0.1516
HISPANIC FEMALE	-0.3755	-2.944	0.0033
BLACK FEMALE	-0.5603	-6.974	0.0001
NATIVE AMERICAN FEMALE	-0.5314	-3.114	0.0019
WHITE FEMALE	-0.5316	-5.947	0.0001
OTHER FEMALE	-0.3259	-2.397	0.0167
SOCIOECONOMIC STATUS	0.0080	2.117	0.0345
SELF-ESTEEM	0.0097	1.424	0.1546
VOC: AGRICULTURE MAJOR	0.2360	1.406	0.1600
VOC: B/O MAJOR	0.1128	0.832	0.4055
VOC: HEALTH MAJOR	0.4969	2.272	0.0233
VOC: DE MAJOR	0.2937	1.727	0.0844
VOC: T/I MAJOR	0.1710	1.114	0.2654
LIVED IN URBAN AREA AT AGE 14	0.0823	1.382	0.1671
UNEMPLOYMENT RATE FOR COUNTY IN 79	-0.0191	-1.049	0.2943
UNEMPLOYMENT RATE FOR COUNTY IN 84	-0.0168	-1.944	0.0522
AGE AS OF 1985 INTERVIEW	1.2979	5.024	0.0001
SQUARE OF AGE IN 1985	-0.0256	-4.655	0.0001
OCCUPATIONAL ASPIRATION AT 35 RELATED	0.0447	0.840	0.4008
MARRIED WHEN RECD FIRST JOB AFTER H.S.	0.1825	3.092	0.0020
CHILDREN WHEN RECD FIRST JOB AFTER H.S.	-0.3275	-5.007	0.0001
AGREE: SCHOOL OFFERS GOOD COUNSELING	0.0725	1.865	0.0623
MISSING DUMMY FOR JOB COUNSELING	-0.0413	-0.425	0.6709
CURRENTLY ENROLLED IN COLLEGE	-0.0524	-0.780	0.4356
RESPONDENT HAS HAD A SCHOOL WORK-STUDY	-0.0725	-1.166	0.2440
LOCUS OF CONTROL	0.0836	0.739	0.4598
MOTHERS OCC RELATED WHEN R WAS 14	0.1383	2.766	0.0057
FATHERS OCC RELATED WHEN R WAS 14	0.0223	0.374	0.7083
HOURS PER WEEK SPENT WATCHING TV	0.0008	0.428	0.6688
MISSED MORE THAN 20 DAYS IN EITHER YR	-0.0086	-0.112	0.9105
MISSED MORE THAN 20 DAYS IN BOTH YRS	0.0841	0.998	0.3186
MISSING ABSENCE DATA	0.0124	0.194	0.8465
PARTICIPATED MODERATELY IN VOC CLUB	-0.0540	-0.721	0.4712
PARTICIPATED HIGHLY IN VOC CLUB	-0.0020	-0.022	0.9826
MISSING DEGREE OF PARTIC DATA	-0.1491	-1.298	0.1944
MISSING ASVAB TEST SCORES	-0.3624	-1.704	0.0887
TOTAL OF 10 SCORING AREAS OF ASVAB	0.0029	3.760	0.0002
G.P.A. FROM MAJOR COURSES	0.0818	2.065	0.0392
SIG. OTH. WANTS R TO BET BACC	-0.0235	-1.129	0.2592
SIG. OTH. NOT WANT R TO GET BACC	0.0232	0.918	0.3587
TIME IN TRP/TIME IN LABOR FORCE	0.4286	2.267	0.0236
EVER ENROLLED IN POSTSECONDARY	-0.0740	-1.083	0.2790
MONTHS WORKED FULL TIME / LABOR FORCE	0.2757	4.037	0.0001
MOST RECENT JOB IS TRAINING RELATED	-0.1589	-0.864	0.3877

LOG OF 1984 EARNINGS - POSTSECONDARY
NLS-YOUTH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	54	259.5993	4.8074	5.944	0.0001
ERROR	896	724.7122	0.8088		
C TOTAL	950	984.3114			

ROOT MSE	0.8994		
R-SQUARE	0.2637	DEP MEAN	8.8723
ADJ R-SQ	0.2194	C.V.	10.1366

VARIABLE LABEL	PARAMETER ESTIMATES	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEPT	-10.2724	-2.792	0.0054
NORTHEASTERN REGION	0.0960	0.937	0.3490
SOUTHERN REGION	0.0771	0.907	0.3648
WESTERN REGION	0.0623	0.590	0.5553
REGION NOT REPORTED	-0.0783	-0.085	0.9320
RESPONDENT LIVED IN A RURAL AREA	-0.1771	-2.244	0.0251
FEMALE ONLY IN HOUSEHOLD AT AGE 14	0.1687	0.578	0.5631
BOTH PARENTS IN HOUSEHOLD AT 14	-0.0146	-0.160	0.8731
CONCENTRATOR	-0.0046	-0.054	0.9572
LIMITED CONCENTRATOR	-0.0261	-0.349	0.7270
HISPANIC MALE	-0.1333	-0.776	0.4381
BLACK MALE	-0.1108	-0.773	0.4396
NATIVE AMERICAN MALE	-0.1178	-0.431	0.6668
OTHER MALE	-0.0420	-0.219	0.8264
HISPANIC FEMALE	-0.3582	-2.304	0.0214
BLACK FEMALE	-0.5999	-4.543	0.0001
NATIVE AMERICAN FEMALE	-0.5337	-2.489	0.0130
WHITE FEMALE	-0.4843	-4.578	0.0001
OTHER FEMALE	-0.2870	-1.757	0.0793
SOCIOECONOMIC STATUS	0.0058	1.256	0.2093
SELF-ESTEEM	0.0064	0.774	0.4391
VOC: AGRICULTURE MAJOR	0.2840	1.386	0.1660
VOC: B/O MAJOR	0.1899	1.173	0.2411
VOC: HEALTH MAJOR	0.5676	2.213	0.0271
VOC: DE MAJOR	0.3864	1.871	0.0617
VOC: T/I MAJOR	0.1798	0.976	0.3294
LIVED IN URBAN AREA AT AGE 14	0.0400	0.546	0.5850
UNEMPLOYMENT RATE FOR COUNTY IN 79	0.0051	0.226	0.8210
UNEMPLOYMENT RATE FOR COUNTY IN 84	-0.0109	-1.021	0.3073
AGE AS OF 1985 INTERVIEW	1.4052	4.489	0.0001
SQUARE OF AGE IN 1985	-0.0273	-4.109	0.0001
OCCUPATIONAL ASPIRATION AT 35 RELATED	0.0661	1.009	0.3131
MARRIED WHEN RECD FIRST JOB AFTER H.S.	0.2034	2.856	0.0044
CHILDREN WHEN RECD FIRST JOB AFTER H.S.	-0.3006	-3.666	0.0003
AGREE: SCHOOL OFFERS GOOD COUNSELING	0.0789	1.671	0.0951
MISSING DUMMY FOR JOB COUNSELING	0.0087	0.071	0.9431
RESPONDENT WAS HAD A SCHOOL WORK-STUDY	-0.1378	-1.875	0.0611
LOCUS OF CONTROL	0.1424	1.045	0.2965
MOTHERS OCC RELATED WHEN R WAS 14	0.1278	2.083	0.0375
FATHERS OCC RELATED WHEN R WAS 14	0.0105	0.148	0.8822
HOURS PER WEEK SPENT WATCHING TV	0.0017	0.729	0.4660
MISSED MORE THAN 20 DAYS IN EITHER YR	-0.0587	-0.637	0.5243
MISSED MORE THAN 20 DAYS IN BOTH YRS	0.0018	0.018	0.9860
MISSING ABSENCE DATA	0.0701	0.892	0.3725
PARTICIPATED MODERATELY IN VOC CLUB	-0.0846	-0.914	0.3610
PARTICIPATED HIGHLY IN VOC CLUB	0.0471	0.435	0.6634
MISSING DEGREE OF PARTIC DATA	-0.2562	-1.785	0.0745
MISSING ASVAB TEST SCORES	-0.3951	-1.450	0.1474
TOTAL OF 10 SCORING AREAS OF ASVAB	0.0028	3.023	0.0026
G.P.A. FROM MAJOR COURSES	0.0512	1.062	0.2886
SIG. OTH. WANTS R TO GET BACC	-0.0173	-0.668	0.5046
SIG. OTH. NOT WANT R TO GET BACC	0.0337	1.063	0.2881
TIME IN TRP/TIME IN LABOR FORCE	0.4830	2.077	0.0381
MONTHS WORKED FULL TIME / LABOR FORCE	0.2863	3.369	0.0008
MOST RECENT JOB IS TRAINING RELATED	-0.2213	-0.984	0.3255

LOG OF 1984 EARNINGS - NON POSTSECONDARY
NLS-YOUTH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	54	137.3495	2.5435	3.581	0.0001
ERROR	346	245.7588	0.7103		
C TOTAL	400	383.1084			

ROOT MSE	0.8428		
R-SQUARE	0.3585	DEP MEAN	8.8861
ADJ R-SQ	0.2584	C.V.	9.4843

VARIABLE LABEL	PARAMETER ESTIMATES	T FOR HO: PARAMETER=0	PROB > |T|
INTERCEPT	-5.3096	-0.948	0.3438
NORTHEASTERN REGION	-0.0594	-0.395	0.6928
SOUTHERN REGION	0.0093	0.069	0.9449
WESTERN REGION	0.1370	0.871	0.3846
REGION NOT REPORTED	0.3659	0.411	0.6812
RESPONDENT LIVED IN A RURAL AREA	0.1528	1.317	0.1886
FEMALE ONLY IN HOUSEHOLD AT AGE 14	0.6361	1.163	0.2454
BOTH PARENTS IN HOUSEHOLD AT 14	-0.0991	-0.359	0.7197
CONCENTRATOR	-0.0861	-0.633	0.5273
LIMITED CONCENTRATOR	-0.1279	-1.124	0.2619
HISPANIC MALE	0.0134	0.069	0.9451
BLACK MALE	-0.6693	-2.980	0.0031
NATIVE AMERICAN MALE	-0.0442	-0.132	0.8797
OTHER MALE	-0.7102	-2.244	0.0254
HISPANIC FEMALE	-0.9568	-2.409	0.0165
BLACK FEMALE	-0.6034	-2.583	0.0102
NATIVE AMERICAN FEMALE	-0.5850	-1.957	0.0511
WHITE FEMALE	-0.7043	-3.982	0.0001
OTHER FEMALE	-0.3817	-1.491	0.1368
SOCIOECONOMIC STATUS	0.0135	1.888	0.0599
SELF-ESTEEM	0.0265	2.088	0.0375
VOC: AGRICULTURE MAJOR	0.4270	1.346	0.1790
VOC: B/O MAJOR	0.0775	0.297	0.7664
VOC: HEALTH MAJOR	0.4044	0.893	0.3722
VOC: OE MAJOR	0.0501	0.160	0.8729
VOC: T/I MAJOR	0.1839	0.637	0.5243
LIVED IN URBAN AREA AT AGE 14	0.1817	1.731	0.0844
UNEMPLOYMENT RATE FOR COUNTY IN 79	-0.0627	-1.973	0.0493
UNEMPLOYMENT RATE FOR COUNTY IN 84	-0.0479	-3.041	0.0025
AGE AS OF 1985 INTERVIEW	1.1185	2.328	0.0205
SQUARE OF AGE IN 1985	-0.0231	-2.239	0.0258
OCCUPATIONAL ASPIRATION AT 35 RELATED	-0.0091	-0.094	0.9254
MARRIED WHEN RECD FIRST JOB AFTER H.S.	0.1072	0.985	0.3254
CHILDREN WHEN RECD FIRST JOB AFTER H.S.	-0.3592	-3.211	0.0014
AGREE: SCHOOL OFFERS GOOD COUNSELING	0.0598	0.542	0.5884
MISSING DUMMY FOR JOB COUNSELING	-0.1874	-1.077	0.2822
RESPONDENT WAS HAD A SCHOOL WORK-STUDY	0.0027	0.023	0.9819
LOCUS OF CONTROL	-0.0384	-0.184	0.8544
MOTHERS OCC RELATED WHEN R WAS 14	0.2024	2.256	0.0247
FATHERS OCC RELATED WHEN R WAS 14	0.1322	1.112	0.2670
HOURS PER WEEK SPENT WATCHING TV	0.0009	0.316	0.7525
MISSED MORE THAN 20 DAYS IN EITHER YR	0.0737	0.502	0.6161
MISSED MORE THAN 20 DAYS IN BOTH YRS	0.2473	1.623	0.1055
MISSING ABSENCE DATA	-0.1480	-1.265	0.2066
PARTICIPATED MODERATELY IN VOC CLUB	-0.0461	-0.348	0.7282
PARTICIPATED HIGHLY IN VOC CLUB	-0.1297	-0.686	0.4934
MISSING DEGREE OF PARTIC DATA	0.0569	0.284	0.7768
MISSING ASVAB TEST SCORES	-0.1116	-0.323	0.7469
TOTAL OF 10 SCORING AREAS OF ASVAB	0.0023	1.620	0.1061
G.P.A. FROM MAJOR COURSES	0.1646	2.245	0.0254
SIG. OTH. WANTS R TO GET BACC	-0.0307	-0.817	0.4142
SIG. OTH. NOT WANT R TO GET BACC	-0.0090	-0.202	0.8404
TIME IN TRP/TIME IN LABOR FORCE	0.3830	1.122	0.2627
MONTHS WORKED FULL TIME / LABOR FORCE	0.3127	2.633	0.0088
MOST RECENT JOB IS TRAINING RELATED	-0.1008	-0.303	0.7623

REFERENCES

Alexander, Karl; Eckland, Bruce K,; and Griffin, L. J. "The Wisconsin Model of Socioeconomic Achievement: A Replication." American Journal of Sociology 81 (1975): 324-342.

Becker, G. S. Human Capital. 2nd ed. Chicago: University of Chicago Press, 1975.

Ben-Porath, Yoram. "The Production of Human Capital and the Life Cycle of Earnings." Journal of Political Economy (August 1967): 352-365.

Bishop, John. The Social Payoff From Occupationally Specific Training: The Employer's Point of View. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1982.

Blinder, Alan S., and Weiss, Yoram. "Human Capital and Labor Supply: A Synthesis." Journal of Political Economy 84, no. 3 (1976): 449-472.

Bottoms, Gene, and Copa, Patricia. "A Perspective on Vocational Education Today." Phi Delta Kappan 64, no. 5 (January 1983): 348-354.

Campbell, Paul B., and Basinger, Karen S. Economic and Noneconomic Alternative Transitions Through School to Work. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1985.

Copa, George. "Critical Issues in Identifying Training-Related Jobs for Vocational Education Programs." Paper presented at the American Educational Research Association annual meeting, New York City, March 18-22, 1982.

Evans, Rupert N. "Vocational Education and Reindustrialization." In Contemporary Challenge for Vocational Education, edited by Katy B. Greenwood. Arlington, VA: American Vocational Association, 1981.

Gardner, John A. Influence of High School Curriculum on Determinants of Labor Market Experience. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1984.

Ghez, G., and Becker, G. The Allocation of Time and Goods Over the Life Cycle. New York: National Bureau of Economic Research, 1975.

Goodlad, John I. A Place Called School: Prospects for the Future. New York, NY: McGraw-Hill Book Company, 1984.

Gordon, Ruth. "The Effect of Curriculum on Labor Market Success Immediately After High School." Research Brief no. 6. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1985.

Gottfredson, Linda S. "Circumscription and Compromise: A Developmental Theory of Occupational Aspirations." Journal of Counseling Psychology 28, no. 6 (November 1981): 545-579.

Grasso, J. T., and Shea, J. R. Vocational Education and Training: Impact on Youth. Berkeley, CA: The Carnegie Council on Policy Studies in Higher Education, 1979.

Gustman, Alan. "Some Remarks Concerning Research in the Economic Effects of Vocational Training in the Schools." Paper presented at the Policy Forum For Employability Development-The Secondary and Postsecondary Vocational Education System, The National Center for Research in Vocational Education, October 14-16, 1981.

Gustman, Alan, and Steinmeier, Thomas. "The Relation Between Vocational Training in High School and Economic Outcomes." Industrial and Labor Relations Review 36, no. 1 (October 1982): 73-87.

Hodson, Randy, and Kaufman, Robert L. "Economic Dualism: A Critical Review." American Sociological Review 47, no. 6, (1982): 727-739.

Horan, Patrick. "Is Status Attainment Research Atheoretical?" American Sociological Review 43 (1978): 534-540.

Hotchkiss, Lawrence, and Chiteji, Lisa. The Dynamics of Career Expectations of Youth: A Theoretical Formulation and Empirical Report Based on a Longitudinal Study. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1981.

Krumboltz, John D. Private Rules in Career Decision Making. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1983.

Lewis, Morgan. Recent Research on Labor Market Outcomes of Secondary Vocational Education. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1983.

Massoudi, Shahrokh. "Factors Which Influence the Placement of Students Completing Postsecondary Machine Shop Programs in Florida." Ph.D. diss., The Florida State University, 1985.

McDonald, Mary Ann. "Characteristics of Students Enrolled in Noncollegiate Postsecondary Occupational Training Programs." Ph.D. diss., Southern Illinois University, 1986.

McKinney, Floyd L.; Franchak, Stephen J.; Halasz, Ida M.; Morrison, Irene; Fornash, Patricia G. Increasing Job Placement Rates in Vocational Programs: Secondary and Postsecondary. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1984.

Mertens, Donna M. "The Vocational Education Graduate in the Labor Market." Phi Delta Kappan 64, no. 5, (January 1983): 360-361.

Mertens, Donna M., and Gardner, John A. "The Long-Term Effects of Vocational Education." Journal of Vocational Education Research 8, no. 2, (Spring 1983.): 1-21.

Mertens, Donna M.; McElwain, Douglas; Carcia, Gonzalo; and Whitmore, Mark. The Effects of Participating in Vocational Education: Summary of Studies Reported Since 1968. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1980.

Meyer, Robert H. An Economic Analysis of High School Vocational Education: The Labor Market Effects of Vocational Education. Washington, DC: The Urban Institute, 1981.

Mincer, Jacob. "The Distribution of Labor Incomes: A Survey with Special Reference to the Human Capital Approach." Journal of Economic Literature 8, no. 1 (March 1970): 1-26.

National Occupational Information Coordinating Committee. Vocational Preparation and Occupations, Third Edition, vol 1. Washington D.C., 1982.

Osterman, Paul. Getting Started - The Youth Labor Market. Cambridge, MA: The MIT Press, 1985.

Otto, Luther B., and Haller, Archibald O. "Evidence for a Social Psychological View of the Status Attainment Process: Four studies Compared." Social Forces (June 1979).

Putnam, John F., and Chismore, W. Dale, eds.. Standard Terminology for Curriculum and Instruction in Local and State School Systems Handbook VI. Washington, DC: Center for Education Statistics, 1970.

Rosen, Sherwin. "A Theory of Life Earnings." Journal of Political Economy 84, no. 4 (1976): 545-567.

Rumberger, Russell W., and Daymont, Thomas N. "The Impact of High School Curriculum on the Earnings and Employability of Youth." In Job Training for Youth, edited by Robert Taylor, Howard Rosen, and Frank Pratzner, pp. 279-305. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1982.

Rumberger, Russell W., and Daymont, Thomas N. "The Economic Value of Academic and Vocational Training acquired in High School." In Youth and the Labor Market, edited by Michael E. Borus. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research, 1984.

Sewell, William H., and Hauser, Robert M. Education, Occupation, and Earnings: Achievement in the Early Career. New York: Academic Press, 1975.

Shaffer, Kathy M., and Hubbs, Marguerite. "A Model to Place Secondary Nontraditional Students in Training-Related Occupations." Columbia, MO: University of Missouri, 1982.

Starr, Harold; Fraser, Jeannette; Russell, Jill; and Orth, Mollie. Opinions about the Roles of Secondary and Postsecondary Vocational Education. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1983.

U.S. Congress. Carl D. Perkins Vocational Education Act. Public Law 98-524. 19 October 1984. Washington, DC: Government Printing Office.

Vocational Preparation and Occupations, Vol. 1: Occupational and Educational Code Crosswalk. Interim Edition. Washington, DC: National Occupational Information Coordinating Committee, 1979.

Weisberg, Alan. "What Research Has to Say About Vocational Education and the High Schools." Phi Delta Kappan 64, no. 5 (1983): 355-359.

Wilms, Wellford. "Vocational Education and Job Success: The Employer's View." Phi Delta Kappan, January 1984, pp. 347-350.